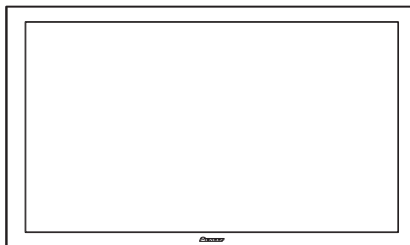


Service Manual



PDP-507CMX

ORDER NO.
ARP3402

PLASMA DISPLAY

PDP-507CMX

PDP-50MXE20

PDP-50MXE20-S

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-507CMX	KUC	AC 120 V	
PDP-50MXE20	LDFK5	AC 100 V to 240 V	
PDP-50MXE20-S	LDF5	AC 100 V to 240 V	
PDP-50MXE20	TYVXK5	AC 100 V to 240 V	



For details, refer to "Important Check Points for good servicing".

1. NOTES ON SERVICE VISIT

1.1 SAFETY INFORMATION



This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.



WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65



NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols  (fast operating fuse) and/or  (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible  (fusible de type rapide) et/ou  (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

SAFETY PRECAUTIONS

NOTICE : Comply with all cautions and safety related notes located on or inside the cabinet and on the chassis.

The following precautions should be observed :

- When service is required, even though the PDP UNIT an isolation transformer should be inserted between the power line and the set in safety before any service is performed.
- When replacing a chassis in the set, all the protective devices must be put back in place, such as barriers, nonmetallic knobs, adjustment and compartment covershields, isolation resistor-capacitor, etc.
- When service is required, observe the original lead dress. Extra precaution should be taken to assure correct lead dress in the high voltage circuitry area.
- Always use the manufacture's replacement components. Especially critical components as indicated on the circuit diagram should not be replaced by other manufacture's. Furthermore where a short circuit has occurred, replace those components that indicate evidence of overheating.
- Before returning a serviced set to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the set by the manufacture has become defective, or inadvertently defeated during servicing. Therefore, the following checks should be performed for the continued protection of the customer and servicetechnician.

- Perform the following precautions against unwanted radiation and rise in internal temperature.
 - Always return the internal wiring to the original styling.
 - Attach parts (Gasket, Ferrite Core, Ground, Rear Cover, Shield Case etc.) surely after disassembly.
- Perform the following precautions for the PDP panel.
 - When the front case is removed, make sure nothing hits the panel face, panel corner, and panel edge (so that the glass does not break).
 - Make sure that the panel vent does not break. (Check that the cover is attached.)
 - Handle the FPC connected to the panel carefully. Twisting or pulling the FPC when connecting it to the connector will cause it to peel off from the panel.
- Pay attention to the following.
 - Pay extreme caution when the front case and rear panel are removed because this may cause a high risk of disturbance to TVs and radios in the surrounding.

Leakage Current Cold Check

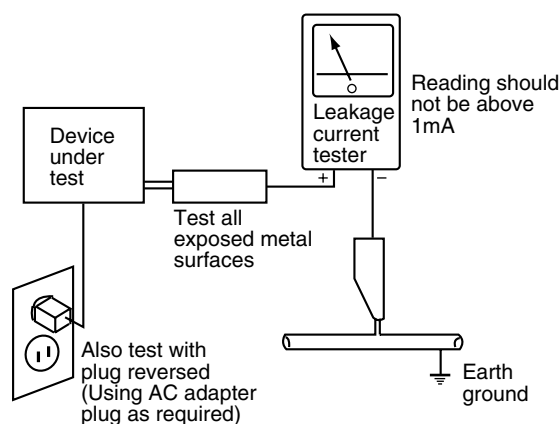
With the AC plug removed from an AC power source, place a jumper across the two plug prongs. Turn the AC power switch on. Using an insulation tester (DC 500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (input/output terminals, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis. Exposed metal parts having a return path to the chassis should have a minimum resistor reading of $4M\Omega$. The below $4M\Omega$ resistor value indicate an abnormality which require corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

Leakage Current Hot Check

Plug the AC line cord directly into an AC power source (do not use an isolation transformer for this check).

Turn the AC power switch on.

Using a "Leakage Current Tester (Simpson Model 229 equivalent)", measure for current from all exposed metal parts of the cabinet (input/output terminals, screwheads, metal overlays, control shaft, etc.), particularly any exposed metal part having a return path to the chassis, to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed 1mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE SET TO THE CUSTOMER.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in PIONEER set have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a \triangle on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

LITHIUM BATTERY NOTICE

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

When replacing the lithium batteries, follow the note below. Dispose of the used battery promptly. Keep away from children. Do not disassemble and do not dispose of in fire.

The battery used in this device may present a fire or chemical hazard if mistreated. Do not recharge, disassemble, heat above 100°C or incinerate. Replace only with the same Part Number. Use of another battery may present a risk of fire or explosion.

Note : The lithium battery installation position is shown in the exploded views.

■ Charged Section

The places where the commercial AC power is used without passing through the power supply transformer.

If the places are touched, there is a risk of electric shock. In addition, the measuring equipment can be damaged if it is connected to the GND of the charged section and the GND of the non-charged section while connecting the set directly to the commercial AC power supply. Therefore, be sure to connect the set via an insulated transformer and supply the current.

1. Power Cord
2. AC Inlet
3. Power Switch (S1)
4. Fuse (In the POWER SUPPLY Unit)
5. STB Transformer and Converter Transformer (In the POWER SUPPLY Unit)
6. Other primary side of the POWER SUPPLY Unit

■ High Voltage Generating Point

The places where voltage is 100 V or more except for the charged places described above. If the places are touched, there is a risk of electric shock.

The VSUS voltage remains for several minutes after the power to the unit is turned off. These places must not be touched until about 10 minutes after the power is turned off, or it is confirmed with a tester that there is no residual VSUS voltage.

If the procedures described in "10.2 POWER ON/OFF FUNCTION FOR THE LARGE-SIGNAL SYSTEM" are performed before the power is turned off, the voltage will be discharged in about 30 seconds.

POWER SUPPLY UNIT	(205 V)
50 X MAIN DRIVE Assy.....	(-180 V to 205 V)
50 X SUB DRIVE Assy.....	(-180 V to 205 V)
50 Y MAIN DRIVE Assy.....	(500 V)
50 Y SUB DRIVE Assy.....	(350 V)
50 SCAN A Assy.....	(500 V)
50 SCAN B Assy.....	(500 V)

- C ■ : Part is Charged Section.
 ■ : Part is the High Voltage Generating Points other than the Charged Section.

POWER SUPPLY Unit

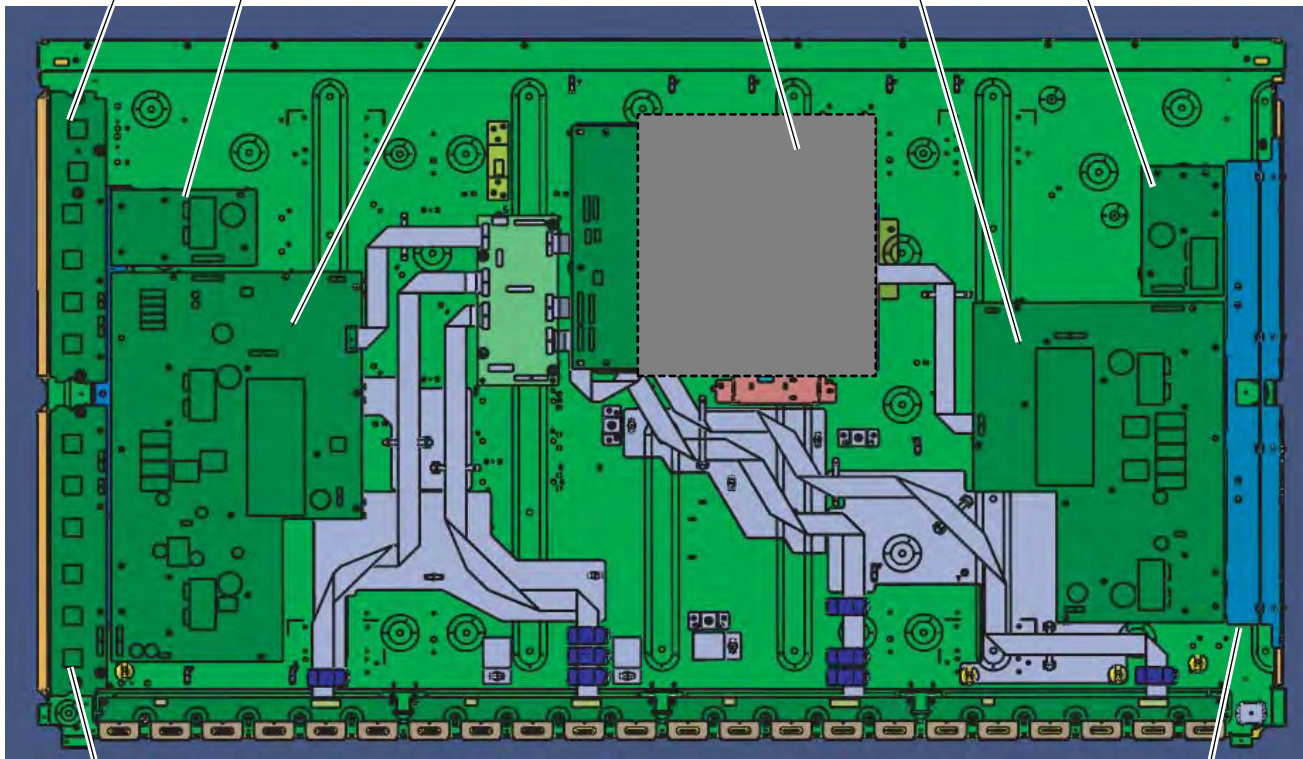
50 X SUB DRIVE Assy

50 Y SUB DRIVE Assy

50 Y MAIN DRIVE Assy

50 X MAIN DRIVE Assy

50 SCAN B Assy



Conductive plate X

Fig.1 High Voltage Generating Point (Rear view)

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol.
Please be sure to confirm and follow these procedures.

1. Product safety



Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

- ① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

- ② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification(addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

- ③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris.
Soldering should be finished with the proper quantity. (Refer to the example)

- ④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

- ⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

- ⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs.
In addition, be sure that there are no pinched wires, etc.

- ⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

- ⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages.
If you find a damaged power cord, please exchange it with a suitable one.

- ⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

- ⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries.
Please pay attention to your surroundings and repair safely.

2. Adjustments



To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification.
Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts



Use grease and adhesives that are equal to the specified substance.
Make sure the proper amount is applied.

4. Cleaning



For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws



To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

1.2 JIGS LIST



■ Cleaning


Name	Part No.	Remarks
Cleaning liquid	GEM1004	Used to fan cleaning. Refer to "2.4 CHASSIS SECTION (1/2) and "2.7 MULTI BASE SECTION".
Cleaning paper	GED-008	

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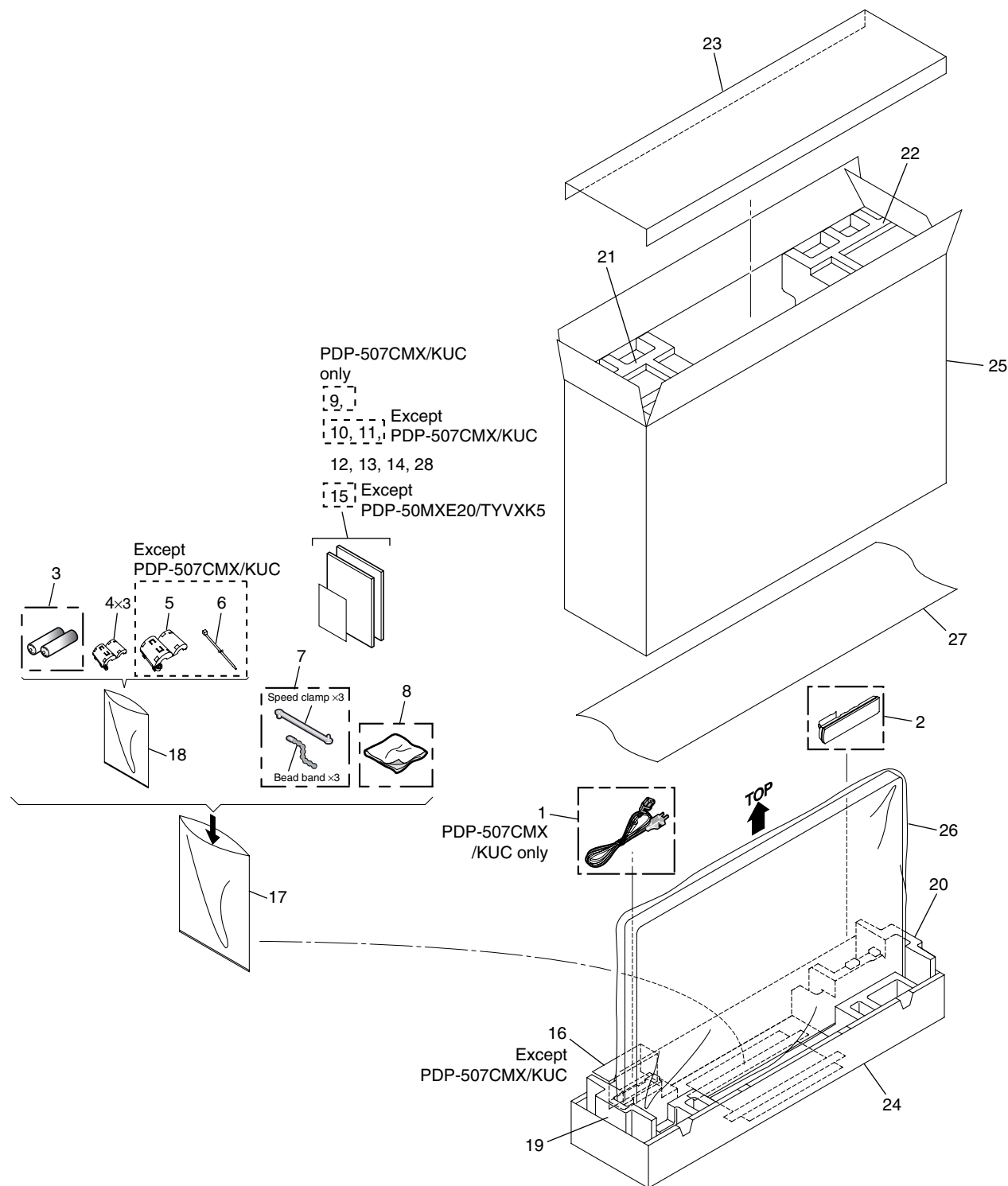
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2. EXPLODED VIEWS AND PARTS LIST

- NOTES:
- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
 - The  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 - Screws adjacent to ▼ mark on product are used for disassembly.
 - For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)

2.1 PACKING SECTION



PDP-507CMX

(1) PACKING PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
⚠ 1	Power Cord (2 m)	See Contrast table (2)	NSP 14	Warranty Card	See Contrast table (2)
2	Remote Control Unit	AXD1528	15	Supplement Sheet	See Contrast table (2)
NSP 3	Dry Cell Battery (R06, AA)	See Contrast table (2)	16	Power Cord Case	See Contrast table (2)
4	Filter (L10 to L12)	CTX1054	17	Polyethylene Bag	AHG1310
5	Ferrite Core (L13)	See Contrast table (2)	18	Polyethylene Bag S	AHG1338
6	Binder	See Contrast table (2)	19	Pad BL (507)	See Contrast table (2)
7	Binder Assy	AEC1908	20	Pad BR (507)	See Contrast table (2)
8	Cleaning Cloth	AED1285	21	Pad TL (507)	See Contrast table (2)
9	Operating Instructions (English/French/Japanese)	See Contrast table (2)	22	Pad TR (507)	See Contrast table (2)
			23	Reinforce Pad (50)	See Contrast table (2)
10	Operating Instructions (English/French/German/Italian/ Dutch/Spanish/Chinese)	See Contrast table (2)	24	Under Carton (507)	See Contrast table (2)
11	Operating Instructions (CD-ROM)	See Contrast table (2)	25	Upper Carton	See Contrast table (2)
12	Image Caution Sheet	ARM1220	26	Mirror Mat	See Contrast table (2)
13	Caution Sheet	ARM1245	27	Mirror Mat S	AHG1399
			28	Caution Card	See Contrast table (2)

(2) CONTRAST TABLE

PDP-507CMX/KUC, PDP-50MXE20/LDFK5, TYVXK5 and PDP-50MXE20-S/LDF5 are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-507CMX /KUC	PDP-50MXE20 /LDFK5	PDP-50MXE20 /TYVXK5	PDP-50MXE20-S /LDF5
⚠	1	Power Cord (2 m)	ADG1215	Not used	Not used	Not used
NSP	3	Dry Cell Battery (R06, AA)	VEM1031	AEX1025	VEM1031	AEX1025
	5	Ferrite Core (L13)	Not used	ATX1039	ATX1039	ATX1039
	6	Binder	Not used	AEC-093	AEC-093	AEC-093
	9	Operating Instructions (English/French/Japanese)	ARD1075	Not used	Not used	Not used
	10	Operating Instructions (English/French/German/Italian/Dutch/ Spanish/Chinese)	Not used	ARE1466	ARE1466	ARE1466
	11	Operating Instructions (CD-ROM)	Not used	ARU1002	ARU1002	ARU1002
NSP	14	Warranty Card	ARY1146	ARY1149	ARY1149	ARY1149
	15	Supplement Sheet	ARM1328	ARM1328	Not used	ARM1328
	16	Power Cord Case	Not used	AHC1095	AHC1094	AHC1095
	19	Pad BL (507)	AHA2612	AHA2612	AHA2621	AHA2612
	20	Pad BR (507)	AHA2613	AHA2613	AHA2622	AHA2613
	21	Pad TL (507)	AHA2614	AHA2614	AHA2623	AHA2614
	22	Pad TR (507)	AHA2615	AHA2615	AHA2624	AHA2615
	23	Reinforce Pad (50)	AHC1088	AHC1088	AHC1093	AHC1088
	24	Under Carton (507)	AHD3473	AHD3473	AHD3498	AHD3473
	25	Upper Carton (507CMX)	AHD3505	Not used	Not used	Not used
	25	Upper Carton (MXE)	Not used	AHD3507	AHD3551	Not used
	25	Upper Carton (MXE-S)	Not used	Not used	Not used	AHD3508
	26	Mirror Mat	AHG1284	AHG1284	AHG1327	AHG1284
	28	Caution Card	ARM1329	ARM1329	ARM1330	ARM1329

1 2 3 4

2.2 REAR SECTION

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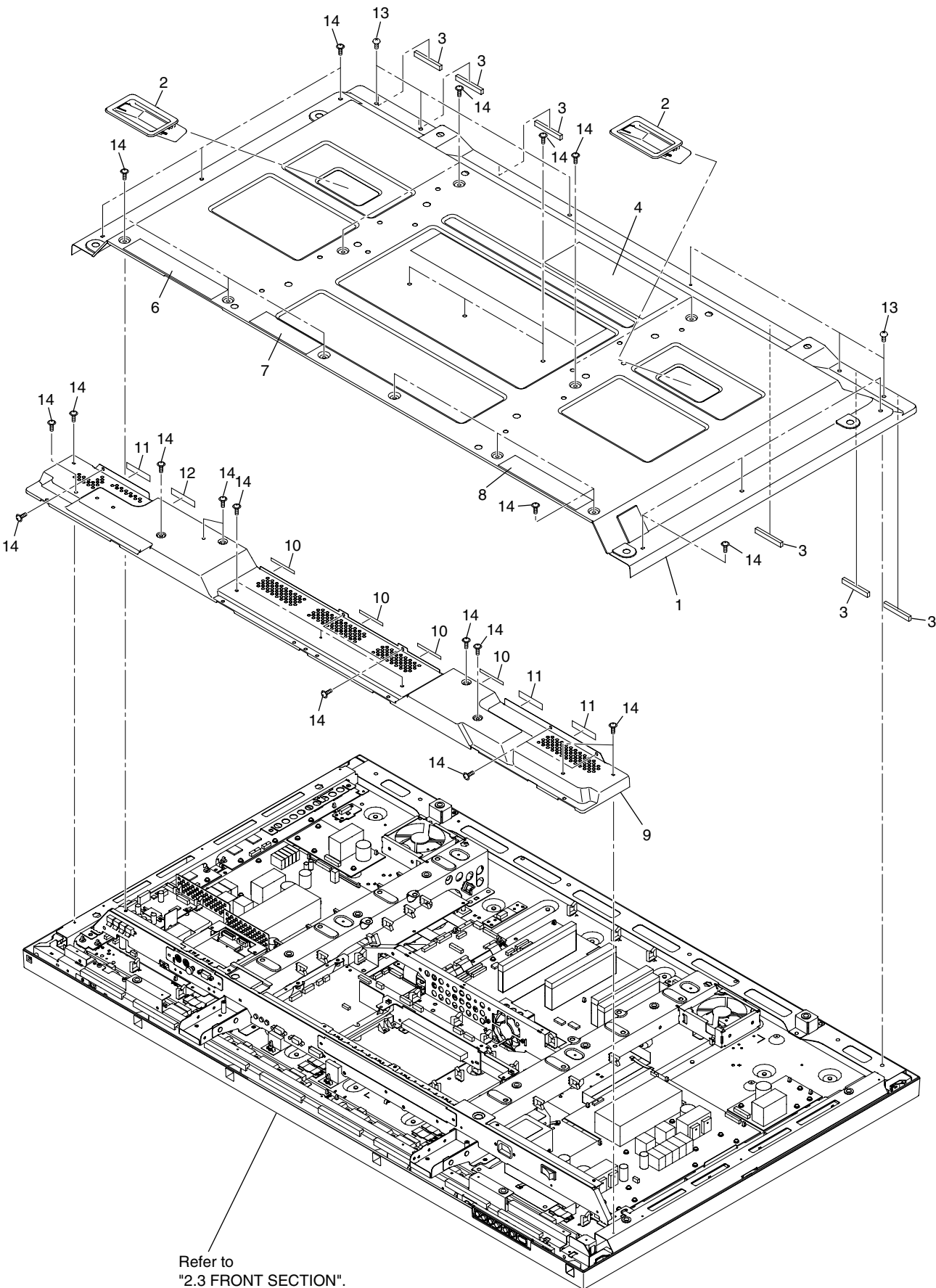
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Refer to
"2.3 FRONT SECTION".

(1) REAR SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Rear Case (507CMX)	ANE1659	10	Gasket C	ANK1872
2	Inner Grip Assy	AMR3434	11	Gasket D	ANK1873
3	Rear Case Cushion	AEB1468	12	Gasket J	ANK1890
NSP 4	Name Label	See Contrast table (2)	13	Screw	TBZ40P080FTB
5	Caution Label	See Contrast table (2)	14	Screw	AMZ30P060FTB
6	Terminal Label A	See Contrast table (2)			
7	Terminal Label B	See Contrast table (2)			
8	Terminal Label C	See Contrast table (2)			
9	Bottom Cover (CMX)	ANG2953			

(2) CONTRAST TABLE

PDP-507CMX/KUC, PDP-50MXE20/LDFK5, TYVVK5 and PDP-50MXE20-S/LDF5 are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-507CMX /KUC	PDP-50MXE20 /LDFK5	PDP-50MXE20 /TYVVK5	PDP-50MXE20-S /LDF5
NSP	4	Name Label (507CMX)	AAL2795	Not used	Not used	Not used
NSP	4	Name Label (50MXE20)	Not used	AAL2796	AAL2882	Not used
NSP	4	Name Label (50MXE20-S)	Not used	Not used	Not used	AAL2797
	5	Caution Label (M)	AAX3304	AAX3304	Not used	AAX3304
	5	Caution Label	Not used	Not used	AAX3295	Not used
	6	Terminal Label A (507CMX)	AAX3373	AAX3373	Not used	AAX3373
	6	Terminal Label A	Not used	Not used	AAX3444	Not used
	7	Terminal Label B (CMX)	AAX3251	AAX3251	Not used	AAX3251
	7	Terminal Label B	Not used	Not used	AAX3293	Not used
	8	Terminal Label C (507CMX)	AAX3374	AAX3374	Not used	AAX3374
	8	Terminal Label C	Not used	Not used	AAX3445	Not used

1 2 3 4

2.3 FRONT SECTION

A

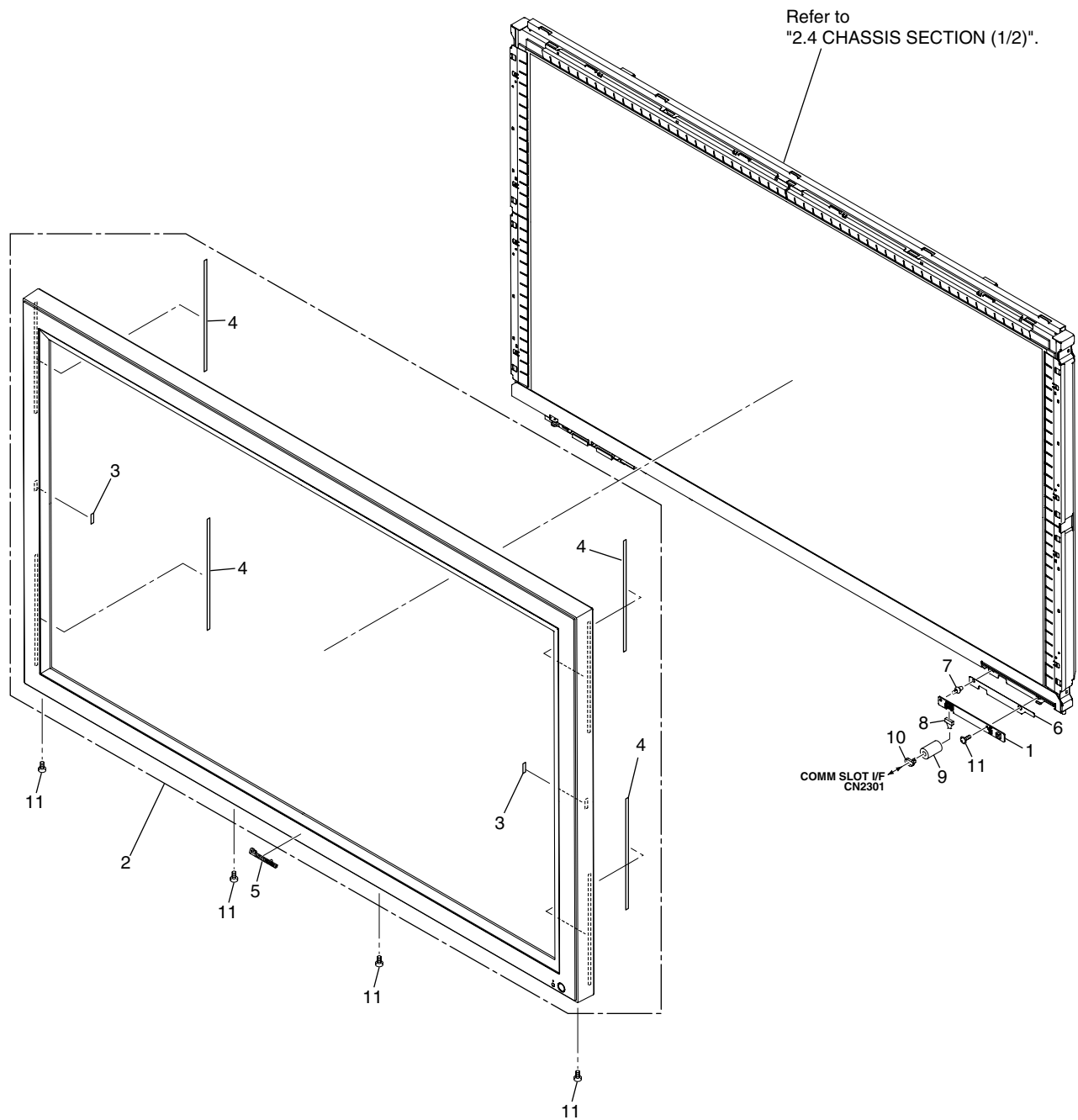
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E

F



(1) FRONT SECTION PARTS LIST

Mark No.	Description	Part No.
1	LED2 Assy	AWW1224
2	Front Case Assy (507CMX)	See Contrast table (2)
3	Front Case Cushion	AEB1471
4	Sheet	AED1289
5	Pionner Name Plate	See Contrast table (2)
6	IR Sheet (50XM6)	AMR3625
7	PCB Spacer	AEC1947
8	8P Housing Wire (J155)	ADX3447
9	Filter	CTX1054
10	Binder	AEC-093
11	Screw	AMZ30P060FTB

(2) CONTRAST TABLE

PDP-507CMX/KUC, PDP-50MXE20/LDFK5, TYVVK5 and PDP-50MXE20-S/LDF5 are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-507CMX /KUC	PDP-50MXE20 /LDFK5	PDP-50MXE20 /TYVVK5	PDP-50MXE20-S /LDF5
	2	Front Case Assy (507CMX)	AMB2994	AMB2994	AMB2994	Not used
	2	Front Case Assy (50MXE-S)	Not used	Not used	Not used	AMB2997
	5	Pioneer Name Plate	AAM1112	AAM1112	AAM1112	AAM1101

2.4 CHASSIS SECTION (1/2)

A

B

C

D

E

F

Refer to
"2.7 MULTI BASE SECTION".



Cleaning liquid : GEM1004
Cleaning paper : GED-008

Refer to
"2.5 CHASSIS SECTION (2/2)".

(1) CHASSIS SECTION (1/2) PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.	
1	COMM SLOT IF Assy	AWW1222	36	Gasket L	ANK1907	
2	AUDIO Assy	AWW1220	37	Terminal Panel (CMX) Assy	ANG2989	A
3	COMM SLOT Assy	AWW1221	38	Rivet A	BEC1158	
4	KEY Assy	AWW1223	39	Front Chassis L (50XM6)	ANA2008	
⚠ 5	Fan Motor 80x25L	AXM1061	40	Front Chassis R (50XM6)	ANA2010	
6	Floating Rubber 80	AEB1427	⚠ 41	Power Switch (S1)	ASG1094	
7	Omega Lock	AEC2108	42	Panel Holder (50XM6)	ANG3003	
8	Mini Clamp	AEC1805	43	Front Chassis U Assy (507C)	ANA2015	
9	Fan Bracket (80)	ANG2987	44	Panel Holder H (50)	ANG2769	
10	COMM I/F Bracket (CMX)	ANG2859	45	Gasket A	ANK1848	
11	Ferrite Core	ATX1039	46	Gasket K	ANK1897	B
12	Wire Saddle	AEC1797	47	Gasket H	ANK1888	
13	COMM Rail (CMX)	AMR3486	48	Front Chassis B Assy (507C)	ANA2053	
14	9P Housing Wire (J145)	ADX3442	49	Bracket LED (50XM6)	ANG3000	
NSP 15	Audio Heat Sink	ANH1648	50	Gasket D	ANK1873	
16	Radiation Sheet AUDIO	AMR3507	51	Filter	CTX1090	
17	Audio Bracket (CMX)	ANG2998	52	Bracket Control (50XM6)	ANG3001	
18	Gasket C	ANK1872	53	3P Housing Wire (J153)	ADX3446	
19	Nylon Rivet	AEP-211	54	Control Button (CMX)	AAC1559	
20	Protection Sheet 92	AMR3643	55	Sheet B	AED1284	C
21	Slot Panel 92	ANG2611	56	Control Cover (507C)	See Contrast table (2)	
22	40P Housing Wire (J151)	ADX3445	57	Scan Sheet (50XM6)	AMR3617	
23	Slot Panel 262 (N)	ANG2610	58	Screw	BPZ30P080FTB	
24	Gasket G	ANK1878	59	Screw	TBZ40P080FTB	
25	Gasket B	ANK1849	60	Screw	ABA1351	
26	Gasket F	ANK1876	61	Screw	BMP40P080FBN	
27	Wire Saddle	AEC1745	62	Screw	BBA1051	
28	Slot Spring T94	ABK1034	63	Screw	ABA1318	
29	Slot Spring B92	ABK1035	64	Screw	AMZ30P060FTB	D
30	Sub Frame L (CMX)	ANG2975	65	Screw	BBZ30P060FTC	
31	Sub Frame R (CMX)	ANG2978	⚠ 66	Housing Wire (J133)	ADX3433	
32	Slot Spring T130	ABK1032				
33	Slot Spring B126	ABK1033				
34	Multi base Support	ANG3031				
⚠ 35	AC Inlet (CN1)	AKP1311				

(2) CONTRAST TABLE

PDP-507CMX/KUC, PDP-50MXE20/LDFK5, TYVXK5 and PDP-50MXE20-S/LDF5 are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-507CMX /KUC	PDP-50MXE20 /LDFK5	PDP-50MXE20 /TYVXK5	PDP-50MXE20-S /LDF5
	56	Control Cover (507C)	AMR3622	AMR3622	AMR3622	Not used
	56	Control Cover (42MXE) S	Not used	Not used	Not used	AMR3595

2.5 CHASSIS SECTION (2/2)

A

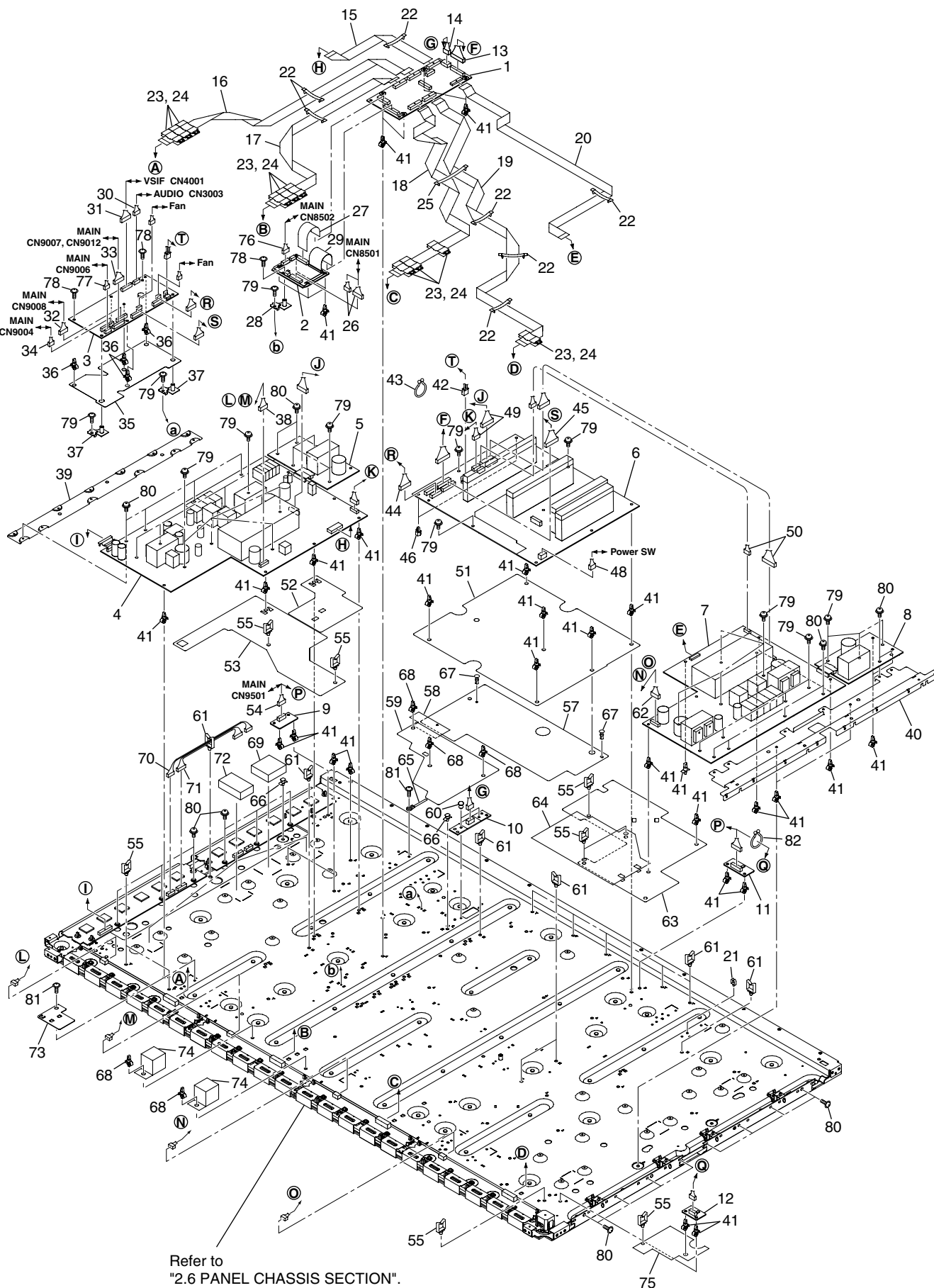
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F



Mark No.	Description	Part No.	Mark No.	Description	Part No.	
1	50 DIGITAL Assy	AWW1241	50	8P/5P Housing Wire (J102)	ADX3427	
2	LVDS Assy	AWW1226				A
3	DD Assy	AWW1227	51	Power Sheet (507)	AMR3634	
4	50 Y MAIN DRIVE Assy	AWW1145	52	Address Sheet C	AMR3630	
5	50 Y SUB DRIVE Assy	AWW1146	53	Address Sheet E	AMR3621	
⚠ 6	POWER SUPPLY Unit	AXY1151	54	4P Housing Wire (J150)	ADX3444	
7	50 X MAIN DRIVE Assy	AWW1143	55	Wire Saddle	AEC1751	
8	50 X SUB DRIVE Assy	AWW1144	56	•••••		
9	SENB Assy	AWW1217	57	Power Sheet B (507)	AMR3555	
10	SENSOR Assy	AWW1140	58	Address Sheet J	AMR3658	
			59	Address Sheet B	AMR3629	
11	SEND Assy	AWW1219	60	Nylon Rivet	AEC1671	B
12	SENC Assy	AWW1218				
13	14P Housing Wire (J105)	ADX3354	61	Wire Saddle	AEC1745	
14	5P Housing Wire (J110)	ADX3359	62	4P Housing Wire (J109)	ADX3432	
15	Flexible Cable (J201)	ADD1435	63	Address Sheet A	AMR3628	
			64	Address Sheet K	AMR3659	
16	Flexible Cable (J202)	ADD1436	65	Binder (M4)	AEC2114	
17	Flexible Cable (J203)	ADD1463				
18	Flexible Cable (J204)	ADD1466	66	PCB Support	AEC1938	
19	Flexible Cable (J205)	ADD1465	67	Rivet A	BEC1158	
20	Flexible Cable (J206)	ADD1440	68	PCB Support	AEC1958	
			69	Drive Silicone Sheet C	AEH1110	C
21	Mini Clamp	AEC1971	70	4P Housing Wire (J119)	ADX3346	
22	Flat Clamp	AEC1879				
23	Ferrite Core	ATX1048	71	10P Housing Wire (J120)	ADX3300	
24	Ferrite Clamp	AEC1986	72	Drive Silicone Sheet B	AEH1109	
25	Flat Clamp 60	AEC2104	73	Ferrite Clamp Base	ANG3030	
			74	Gasket E	ANK1874	
26	3P/31P Cable (J140)	ADX3437	75	Address Sheet L	AMR3660	
27	20P Flexible Cable (J207)	ADD1471				
28	LVDS unit Base	ANG3027	76	20P Housing Wire (J139)	ADX3436	
29	50P Flexible Cable (J208)	ADD1472	77	7P Housing Wire (J142)	ADX3439	
30	6P Housing Wire (J143)	ADX3440	78	Screw	AMZ30P060FTB	D
			79	Screw	ABA1351	
31	13P Housing Wire (J137)	ADX3435	80	Screw	ABA1364	
32	8P Housing Wire (J141)	ADX3438				
33	6P/7P/12P Housing Wire (J144)	ADX3441	81	Screw	TBZ40P080FTB	
34	4P Housing Wire (J147)	ADX3443	82	Omega Lock	AEC2108	
35	DC Unit Sheet	AMR3612				
36	PCB Spacer	AEC1126				
37	DD Unit Base	ANG3005				
38	4P Housing Wire (J108)	ADX3431				E
39	Conductive Plate Y	ANG2902				
40	Conductive Plate X	ANG2905				
41	Re-use PCB Spacer	AEC2087				
42	3P Housing Wire (J130)	ADX3428				
43	Omega Lock	AEC2084				
44	10P Housing Wire (J132)	ADX3430				
45	13P Housing Wire (J131)	ADX3429				
46	Tapping Card Spacer	AEC2103				
47	•••••					F
⚠ 48	Housing Wire (J134)	ADX3434				
49	9P/6P/5P Housing Wire (J101)	ADX3426				

1 2 3 4

2.6 PANEL CHASSIS SECTION

A

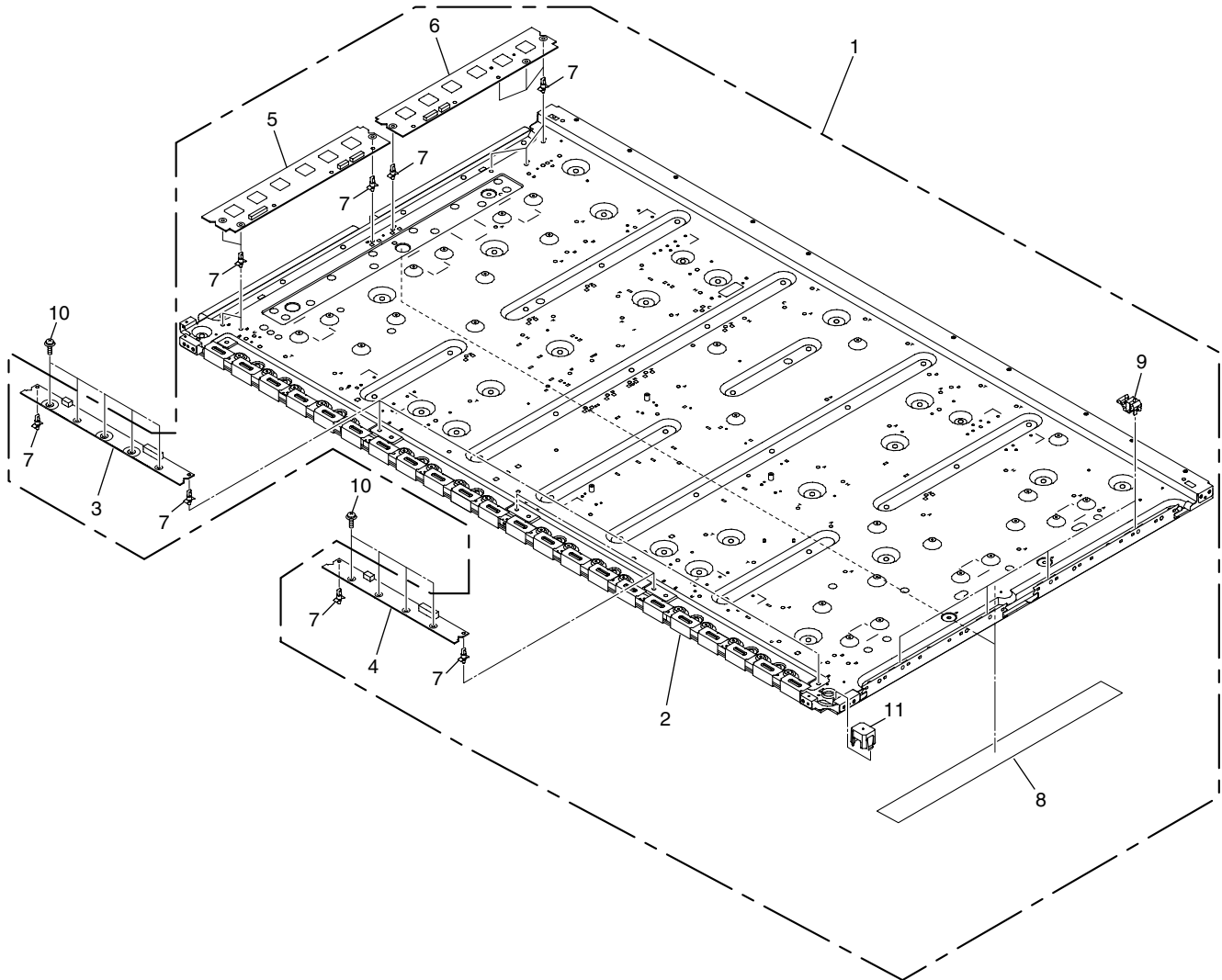
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PANEL CHASSIS SECTION PARTS LIST

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
NSP 1	Panel Chassis (507) Assy	AWU1148
NSP 2	Plasma Panel (50DC) Assy	AWU1162
NSP 3	50 ADDRESS L Assy	AWW1141
NSP 4	50 ADDRESS S Assy	AWW1142
NSP 5	50 SCAN A Assy	AWW1147
NSP 6	50 SCAN B Assy	AWW1148
7	Re-use PCB Spacer	AEC2087
NSP 8	Adhesive Tape (50)	AEH1119
9	Conductive Plate Holder	AMR3446
10	Screw	ABA1351
NSP 11	Tube Cover	AMR3445

2.7 MULTI BASE SECTION

A

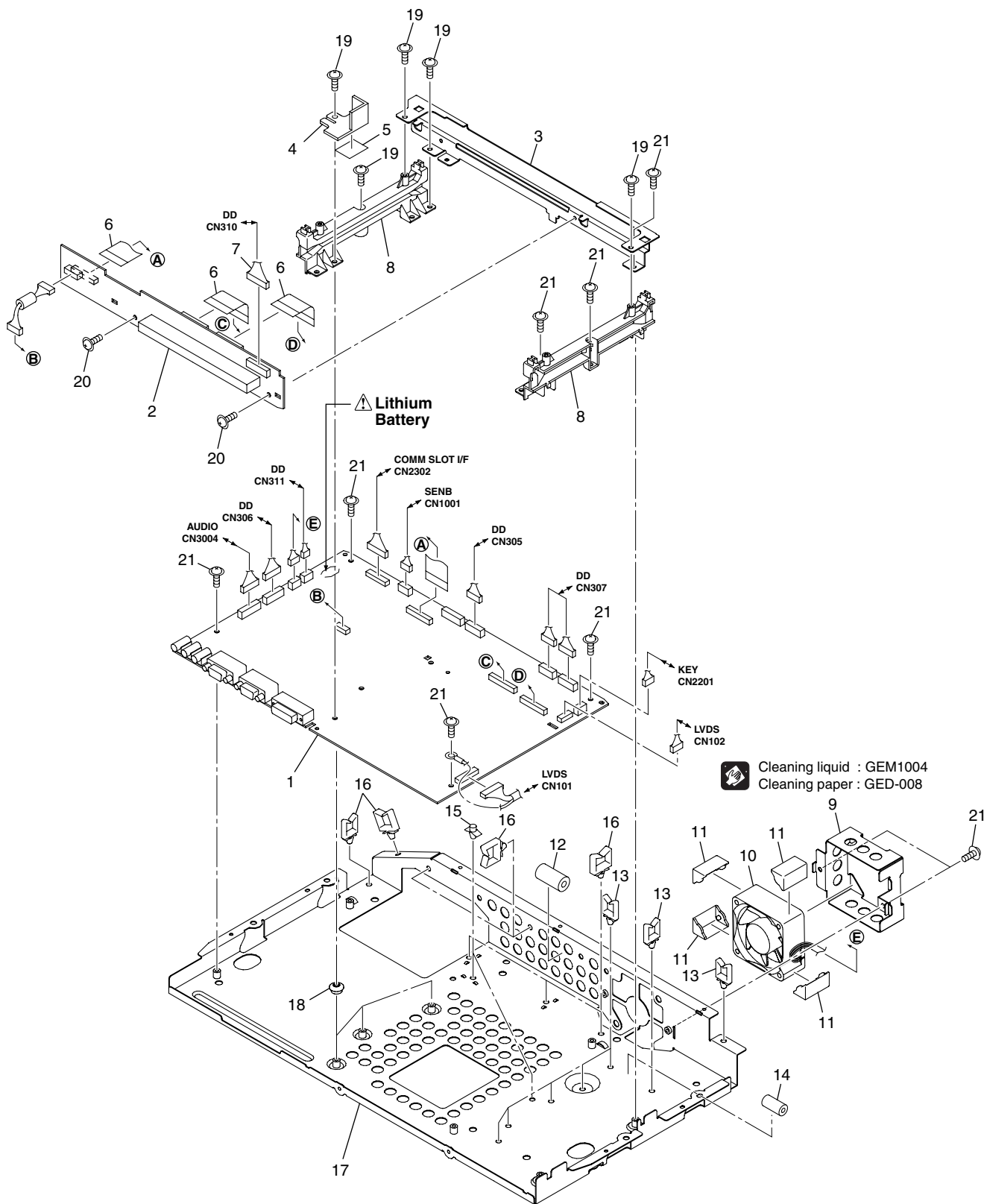
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(1) MULTI BASE SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	MAIN Assy	See Contrast table (2)	12	Ferrite Core	ATX1039
2	VSIF Assy	See Contrast table (2)	13	Wire Saddle	AEC1745
3	Vlideo I/F Bracket (CMX)	ANG2858	14	Filter	CTX1054
4	DVI Heat Sink	ANH1665	15	PCB Support	AEC1958
5	Radiation Sheet AUDIO	AMR3507			
6	50P Flexible Flat Cable (J209)	ADD1475	16	Wire Saddle	AEC1797
7	20P Housing Wire (J138)	ADX3274	17	Multi Base (CMX)	ANA2006
8	Video Rail (CMX)	AMR3485	18	PCB Sleeve	AMR3518
9	Fan Bracket (60)	ANG2988	19	Screw	PMB30P100FNI
10	Fan Motor 60x25L	AXM1060	20	Screw	ABA1351
11	Floating Rubber 60	AEB1410	21	Screw	AMZ30P060FTB

(2) CONTRAST TABLE

PDP-507CMX/KUC, PDP-50MXE20/LDFK5, TYVXK5 and PDP-50MXE20-S/LDF5 are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-507CMX /KUC	PDP-50MXE20 /LDFK5	PDP-50MXE20 /TYVXK5	PDP-50MXE20-S /LDF5
	1	MAIN Assy	AWW1199	AWW1201	AWW1201	AWW1201
	2	VSIF Assy	AWW1200	AWW1202	AWW1202	AWW1202

4

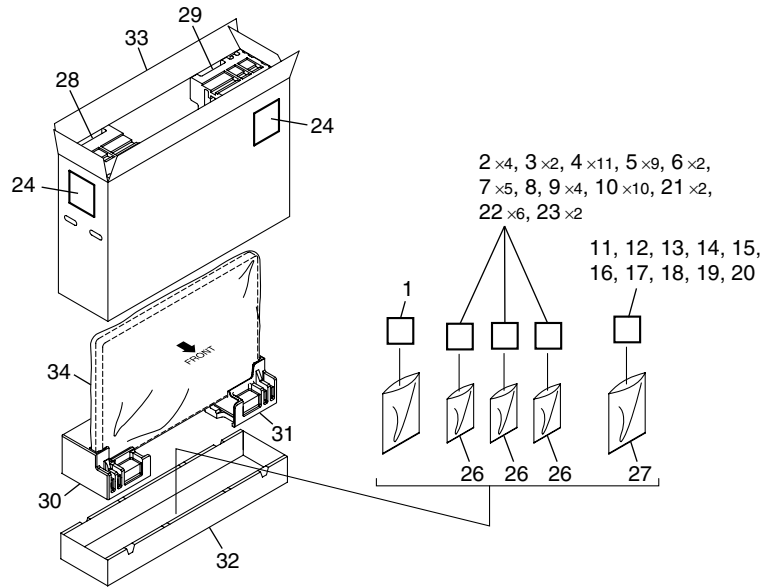
Note:
The parts labeled here with circled numbers
are supplied with the Assy for service.
Attach them, referring to this diagram.



●EXTERIOR SECTION PARTS LIST

Mark	No.	Description	Part No.	No. of pcs	Remarks
	1	Panel Chassis (507) Assy	AWU1148	×1	
	2	Front Chassis VL (50)	AMA1014	×1	Not used
	3	Front Chassis VR (507)	AMA1022	×1	Not used
	4	Sub Frame L Assy 507	ANA1945	×1	Not used
	5	Sub Frame R Assy 507	ANA1946	×1	Not used
	6	Front Chassis H Assy (507)	ANA2058	×1	Not used
	7	Conductive Plate X	ANG2905	×1	
	8	Cushion	AEB1424	×1	Not used
NSP	9	PCB Spacer	AEC1126	×4	
	10	PCB Spacer	AEC1570	×2	
	11	Wire Saddle	AEC1745	×11	
	12	Wire Saddle	AEC1751	×9	
	13	Screw Rivet	AEC1877	×4	
	14	PCB Support	AEC1938	×2	
	15	PCB Support	AEC1958	×5	
	16	Mini Clamp	AEC1971	×1	
	17	Ferrite Clamp	AEC1986	×10	
	18	Re-use PCB Spacer	AEC2087	×2	
	19	DC Unit Sheet	AMR3612	×1	
	20	Address Sheet E	AMR3621	×1	
	21	Address Sheet A	AMR3628	×1	
	22	Address Sheet B	AMR3629	×1	
	23	Address Sheet J	AMR3658	×1	
	24	Address Sheet K	AMR3659	×1	
	25	Address Sheet L	AMR3660	×1	
	26	Gasket E	ANK1874	×2	
	27	Rivet A	BEC1158	×2	
	28	Ferrite Clamp Base	ANG3030	×1	
NSP	29	Front Case Assy (507SV)	AMB2977	×1	Not used (for transport)
	30	Rear Case (507)	ANE1656	×1	Not used
	31	Screw (3 x 40P)	ABA1332	×2	
	32	Screw	ABA1351	×24	
	33	•••••			
	34	Screw	ABA1364	×8	
	35	Screw	ABZ30P080FTC	×6	
	36	Screw	AMZ30P060FTB	×10	
	37	Screw	APZ30P080FTB	×2	
	38	Screw	TBZ40P080FTB	×28	
NSP	39	Drive Voltage Label	ARW1097	×1	

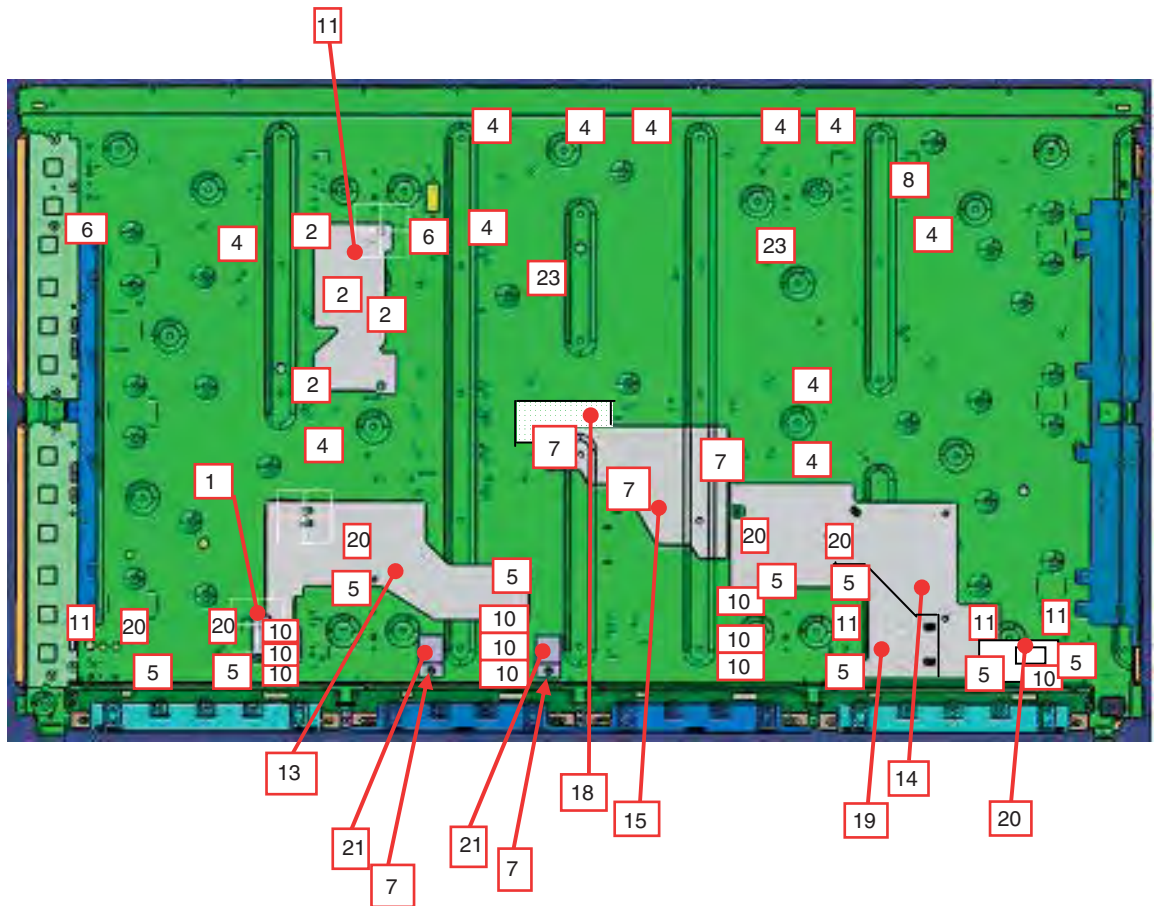
A ● PACKING SECTION



C ● PACKING SECTION PARTS LIST


Mark	No.	Description	Part No.	No. of pcs	Remarks
NSP	1	Ferrite Clamp Base	ANG3030	×1	(No. 28 of exterior)
	2	PCB Spacer	AEC1126	×4	(No. 9 of exterior)
	3	PCB Spacer	AEC1570	×2	(No. 10 of exterior)
	4	Wire Saddle	AEC1745	×11	(No. 11 of exterior)
	5	Wire Saddle	AEC1751	×9	(No. 12 of exterior)
D	6	PCB Support	AEC1938	×2	(No. 14 of exterior)
	7	PCB Support	AEC1958	×5	(No. 15 of exterior)
	8	Mini Clamp	AEC1971	×1	(No. 16 of exterior)
	9	Harness Lifter 28	AEC1982	×4	Not used
	10	Ferrite Clamp	AEC1986	×10	(No. 17 of exterior)
E	11	DC Unit Sheet	AMR3612	×1	(No. 19 of exterior)
	12	Address Sheet A (50X7)	AMR3615	×1	Not used
	13	Address Sheet E	AMR3621	×1	(No. 20 of exterior)
	14	Address Sheet A	AMR3628	×1	(No. 21 of exterior)
	15	Address Sheet B	AMR3629	×1	(No. 22 of exterior)
E	16	Address Sheet D	AMR3631	×1	Not used
	17	Address Sheet F	AMR3646	×1	Not used
	18	Address Sheet J	AMR3658	×1	(No. 23 of exterior)
	19	Address Sheet K	AMR3659	×1	(No. 24 of exterior)
	20	Address Sheet L	AMR3660	×1	(No. 25 of exterior)
NSP	21	Gasket E	ANK1874	×2	(No. 26 of exterior)
	22	Gasket AV8	ANK1881	×6	Not used
	23	Rivet A	BEC1158	×2	(No. 27 of exterior)
	24	Caution Label	AAX3031	×2	
	25	• • • •		×1	
F	25	Polyethylene Bag	AHG1337	×1	
	26	Polyethylene Bag S	AHG1338	×3	
	27	Polyethylene Bag	AHG1340	×1	
	28	Pad (507 T-L)	AHA2538	×1	
	29	Pad (507 T-R)	AHA2539	×1	
F	30	Pad (507 B-L)	AHA2540	×1	
	31	Pad (507 B-R)	AHA2541	×1	
	32	Under Carton (507)	AHD3473	×1	
	33	Upper Carton (507SV)	AHD3550	×1	
	34	Protect Sheet	AHG1331	×1	

No.	Description	No.	Description	No.	Description
1	Ferrite Clamp Base	8	Mini Clamp	18	Address Sheet J
2	PCB Spacer	10	Ferrite Clamp	19	Address Sheet K
4	Wire Saddle	11	DC Unit Sheet	20	Address Sheet L
5	Wire Saddle	13	Address Sheet E	21	Gasket E
6	PCB Support	14	Address Sheet A	23	Rivet A
7	PCB Support	15	Address Sheet B		



3. PCB PARTS LIST




NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.




● The  mark found on some component parts indicates the importance of the safety factor of the part.




Therefore, when replacing, be sure to use parts of identical designation.




● When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).





560 Ω \rightarrow 56×10^1 \rightarrow 561 RD1/4PU  J

47k Ω \rightarrow 47×10^3 \rightarrow 473 RD1/4PU  J


0.5 Ω \rightarrow R50 RN2H  K

1 Ω \rightarrow 1R0 RS1P  K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω \rightarrow 562×10^1 \rightarrow 5621 RN1/4PC  F

LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol and Description	PDP-507CMX /KUC	PDP-50MXE20 /LDFK5	PDP-50MXE20 /TYVXK5	PDP-50MKE20-S /LDF5
NSP	1..PANEL CHASSIS ASSY	AWU1148	AWU1148	AWU1148	AWU1148
NSP	2..50 ADDRESS ASSY	AWV2303	AWV2303	AWV2303	AWV2303
NSP	3..50 ADDRESS L ASSY	AWW1141	AWW1141	AWW1141	AWW1141
NSP	3..50 ADDRESS S ASSY	AWW1142	AWW1142	AWW1142	AWW1142
NSP	2..50 SCAN ASSY	AWV2304	AWV2304	AWV2304	AWV2304
NSP	3..50 SCAN A ASSY	AWW1147	AWW1147	AWW1147	AWW1147
NSP	3..50 SCAN B ASSY	AWW1148	AWW1148	AWW1148	AWW1148
NSP	1..50 X DRIVE ASSY	AWV2305	AWV2305	AWV2305	AWV2305
	2..50 X MAIN DRIVE ASSY	AWW1143	AWW1143	AWW1143	AWW1143
	2..50 X SUB DRIVE ASSY	AWW1144	AWW1144	AWW1144	AWW1144
NSP	1..50 Y DRIVE ASSY	AWV2306	AWV2306	AWV2306	AWV2306
	2..50 Y MAIN DRIVE ASSY	AWW1145	AWW1145	AWW1145	AWW1145
	2..50 Y SUB DRIVE ASSY	AWW1146	AWW1146	AWW1146	AWW1146
NSP	1..50 DIGITAL ASSY	AWV2436	AWV2436	AWV2436	AWV2436
	2..50 DIGITAL ASSY	AWW1241	AWW1241	AWW1241	AWW1241
	2..SENSOR ASSY	AWW1140	AWW1140	AWW1140	AWW1140
NSP	1..MAIN ASSY (50CMX)	AWV2377	AWV2403	AWV2403	AWV2403
	2..MAIN ASSY	AWW1199	AWW1201	AWW1201	AWW1201
	2..VSIF ASSY	AWW1200	AWW1202	AWW1202	AWW1202
NSP	1..SUB ASSY (50CMX)	AWV2406	AWV2406	AWV2406	AWV2406
	2..SENB ASSY	AWW1217	AWW1217	AWW1217	AWW1217
	2..SENC ASSY	AWW1218	AWW1218	AWW1218	AWW1218
	2..SEND ASSY	AWW1219	AWW1219	AWW1219	AWW1219
	2..AUDIO ASSY	AWW1220	AWW1220	AWW1220	AWW1220
	2..COMMSLOT ASSY	AWW1221	AWW1221	AWW1221	AWW1221
	2..COMMSLOT IF ASSY	AWW1222	AWW1222	AWW1222	AWW1222
	2..KEY ASSY	AWW1223	AWW1223	AWW1223	AWW1223
	2..LED2 ASSY	AWW1224	AWW1224	AWW1224	AWW1224
NSP	1..MDIF ASSY (50CM)	AWV2419	AWV2419	AWV2419	AWV2419
	2..LVDS ASSY	AWW1226	AWW1226	AWW1226	AWW1226
	2..DD ASSY	AWW1227	AWW1227	AWW1227	AWW1227
	1..POWER SUPPLY UNIT	AXY1151	AXY1151	AXY1151	AXY1151

■ CONTRAST OF PCB ASSEMBLIES

MAIN ASSY

AWV1199 and AWV1201 are constructed the same except for the following :

Mark	Symbol and Description	AWV1199	AWV1201
	R9111 R9112	RS1/10SR0R0J Not used	Not used RS1/10SR0R0J

VSIF ASSY

AWW1200 and AWW1202 are constructed the same except for the following :

Mark	Symbol and Description	AWW1200	AWW1202
	R4042 R4043	RS1/10SR0R0J Not used	Not used RS1/10SR0R0J

■ PCB PARTS LIST FOR PDP-507CMX/KUC UNLESS OTHER WISE NOTED

Mark No.	Description	Part No.	Mark No.	Description	Part No.
50 ADDRESS L ASSY			MISCELLANEOUS		
[50 ADR L LOGIC]			L1730,1740,1750,1760 L1770,1780		
SEMICONDUCTORS			RESISTORS		
IC1601		PEE003B	R1710,1711 Other Resistors		ATH1199 ATH1199 RS1/16SS220J RS1/16S###J
MISCELLANEOUS			CAPACITORS		
L1601 CN1601 CONNECTOR 4P CN1602 40P CONNECTOR		QTL1013 AKM1290 AKM1348	C1710 C1711 (0.1 uF / 100 V) C1730,1740,1750,1760 C1731,1741,1751,1761 C1770,1780 C1771,1781		CKSYB105K25 ACG1098 ACG1137 ACG1136 ACG1137 ACG1136
RESISTORS			50 ADDRESS S ASSY		
R1601-1605 Other Resistors		RS1/16SS1000F RS1/16SS###J	[50 ADR S LOGIC]		
CAPACITORS			SEMICONDUCTORS		
C1601-1604,1607 C1605,1606 C1608,1609 C1651-1656 (330 pF / 100 V) C1657-1662 C1664,1666,1668		CKSSYF104Z16 CKSSYB102K50 CKSRYB105K6R3 ACG1105 CKSSYF104Z16 CCSSCH390J50	IC1801		PEE003B
[50 ADR L RESONANCE]			MISCELLANEOUS		
SEMICONDUCTORS			L1801 CN1801 CONNECTOR 4P CN1802 40P CONNECTOR		QTL1013 AKM1290 AKM1348
IC1720 Q1710,1711 Q1731,1741,1751,1761 Q1771,1781 Q1790 Q1791 D1710,1737,1747,1757 D1731,1741,1751,1761 D1734,1744,1754,1764 D1736,1738,1746,1748 D1756,1758,1766,1768 D1767,1777,1787 D1771,1781 D1774,1784 D1776,1778,1786,1788		TND307TD QSZ2 HAT3041R HAT3041R 2SA1163 RN1901 1SS302 UDZS15(B) EP05FA20 1SS355 1SS355 1SS302 UDZS15(B) EP05FA20 1SS355	RESISTORS		
			R1801-1805 Other Resistors		RS1/16SS1000F RS1/16SS###J
			CAPACITORS		
			C1801-1804,1807 C1805,1806 C1808,1809 C1851-1855 (330 pF / 100 V) C1857-1861 C1864 C1866		CKSSYF104Z16 CKSSYB102K50 CKSRYB105K6R3 ACG1105 CKSSYF104Z16 CCSSCH390J50 CCSSCH101J50

Mark No. Description**Part No.****Mark No. Description****Part No.****[50 ADR S RESONANCE]****SEMICONDUCTORS**

IC1920
Q1910,1911
Q1931,1941,1951,1961
Q1971
Q1990

TND307TD
QSZ2
HAT3041R
HAT3041R
2SA1163

Q1991
D1910,1937,1947,1957
D1931,1941,1951,1961
D1934,1944,1954,1964
D1936,1938,1946,1948

RN1901
1SS302
UDZS15(B)
EP05FA20
1SS355

D1956,1958,1966,1968
D1967,1977
D1971
D1974
D1976,1978

1SS355
1SS302
UDZS15(B)
EP05FA20
1SS355

MISCELLANEOUS

L1930,1940,1950,1960
L1970

ATH1199
ATH1199

RESISTORS

R1910,1911
Other Resistors

RS1/16SS220J
RS1/16S###J

CAPACITORS

C1910
C1911 (0.1 uF / 100 V)
C1930,1940,1950,1960
C1931,1941,1951,1961
C1970

CKSYB105K25
ACG1098
ACG1137
ACG1136
ACG1137

C1971

ACG1136

50 SCAN A ASSY**SEMICONDUCTORS**

IC2801-2806
D2801
D2802-2807,2809,2811
D2810

SN755870KPZT-P
CRH01
1SS302
1SS355

MISCELLANEOUS

CN2801 13P CONNECTOR
CN2802 CONNECTOR 10P
CN2803 PH CONNECTOR

AKP1261
AKM1281
AKP1306

RESISTORS

R2805,2810,2813,2816
R2819,2822
Other Resistors

RAB4C221J
RAB4C221J
RS1/16S###J

CAPACITORS

C2801,2802,2811,2812 (0.1 uF/250 V)
C2803,2813,2823,2833
C2805-2807,2815-2817
C2808-2810,2818-2820
C2821,2822,2831,2832 (0.1 uF/250 V)

ACG1088
CKSRYB105K6R3
CCSRCH220J50
CCSRCH151J50
ACG1088

C2825-2827,2835-2837
C2828-2830,2838-2840
C2841,2842,2851,2852 (0.1 uF/250 V)
C2843,2853
C2845-2847,2855-2857

CCSRCH220J50
CCSRCH151J50
ACG1088
CKSRYB105K6R3
CCSRCH220J50

50 X MAIN DRIVE ASSY**[50X LOGIC BLOCK]****SEMICONDUCTORS**

IC1001
IC1002
D1001-1004

TC74ACT541FT
TC74VHC00FTS1
1SS355

MISCELLANEOUS

K1004,1007 TEST PIN
CN1001 18P CONNECTOR

AKX1061
VKN1310

RESISTORS

R1001,1006
R1004
VR1001
Other Resistors

RAB4C470J
RAB4C472J
CCP1390
RS1/16S###J

CAPACITORS

C1001
C1002,1003
C1004
C1006

CEHAT470M16
CKSRYB104K16
CCSRCH331J50
CCSRCH680J50

[50X RESONANCE BLCOK]**SEMICONDUCTORS**

IC1101,1105
IC1102

TND307TD
PS9117P

5		6		7		8	
Mark No.	Description	Part No.		Mark No.	Description	Part No.	
IC1104		AXF1163		KN1201-1204,1210-1217		ANK1841	
IC1107		PS2701A-1(L)					
Q1101		2SC2412K		CN1201 14P CONNECTOR		14PL-FJ	
				CN1204 8P TOP POST		B8B-EH	
Q1102,1103		QSZ2		1202 SCREW		PMB30P080FNI	
Q1104,1105		2SC4081		CN1205 5P PLUG		KM200NA5	
D1101,1103		UDZS5R6(B)		CN1202 8P PLUG		KM200NA8	
D1102		CRH01					
D1104		UDZS15(B)					
MISCELLANEOUS				RESISTORS			
L1101		ATH1217		R1208,1210,1213,1215		RS1/10S100J	
L1106		ATH1216		R1211		ACN1254	
F1101		CTF1449		R1219,1228,1230,1231		RS1/10S0R0J	
1101 DRIVE HEATSINK DK		ANH1653		R1220,1224,1233,1256		RS1/10S2R2J	
1102 DRIVE RADIATION SHEET		AEH1092		R1237		RS1/10S0R0J	
1103 SCREW		BMZ30P080FTC					
RESISTORS				R1239		ACN1258	
R1107,1108		RS3LMF100J		R1245		ACN1257	
R1109,1110		RS1/10S4702F		R1247,1248		RS3LMF470J	
R1113		RS1/16S1002F		Other Resistors		RS1/16S###J	
R1114		RS1/16S3302F					
R1115		ACN1259					
R1119		ACN1258					
R1121		RS1/16S4701F					
Other Resistors		RS1/16S###J					
CAPACITORS				CAPACITORS			
C1101,1114		CEHAT470M25		C1201,1212 (470 pF / 630 V)		ACG1126	
C1102,1115		CKSRYF104Z50		C1202,1209,1232,1236		CKSRYB104K16	
C1103		CKSRYB104K16		C1203,1208,1215,1229		CKSRYF104Z50	
C1104,1117		CKSYB105K25		C1205,1206,1217,1218		ACG1139	
C1107,1116 (470 pF / 630 V)		ACG1126		C1207,1214,1220,1226		CEHAT470M25	
C1113		ACH1450		C1210,1211,1216,1241		CKSYB105K25	
C1121-1124		ACE1178		C1213		CCSRCH221J50	
				C1222,1223		ACH1423	
				C1224,1225		ACE1178	
				C1228		CEHAT2R2M2E	
				C1230		ACH1449	
				C1231,1237		CEHAT101M10	
				C1233		CKSRYB473K16	
				C1234		CEHAT470M16	
				C1235		CKSRYB105K6R3	
				C1244		CKSRYB104K25	
[50X SUS BLOCK]				[DRIVE HEATSINK M]			
SEMICONDUCTORS				MISCELLANEOUS			
IC1201,1204,1206,1208		TND307TD		3001,3001 DRIVE HEATSINK M		ANH1654	
IC1202,1205		PS9117P		3001 DRIVE HEATSINK M		ANH1656	
IC1209		MM1565AF		3101,3101 SPACER		ANG2679	
Q1201,1208		2SC2412K		3101 SPACER		ANG2679	
Q1202,1204,1205,1207		H5N2512LS					
Q1209,1212-1214		QSZ2					
Q1210,1211		FKP280AS					
Q1215,1221		FKP300AS					
Q1216		DTC143EK					
Q1217		DTC123TKA					
Q1220		R5009ANJ					
D1201,1205		UDZS5R6(B)					
D1202,1203,1206,1211		CRH01					
D1204		D1FL40					
D1208		1SS302					
D1209		UDZS16(B)					
D1210		1SS355					
D1212		CRH01					
D1213		UDZS8R2(B)					
MISCELLANEOUS				SEMICONDUCTORS			
L1201,1203,1204		BTH1134		IC1301		PS2701A-1(L)	
L1202		ATH1186		IC1302		TA76431FR	
F1227		CTF1449		Q1301		2SC2412K	
K1202 TEST PIN		AKX1061		Q1303,1306,1307		HN1C01FU	
				Q1304,1401		2SD1898	
				Q1305		2SA1037K	
				Q1402		2SC4081	
				D1307		CRF03	
				D1308,1403		UDZS5R1(B)	
				D1309,1311,1401,1405		CRH01	
				D1312,1402		1SS301	
				D1313,1318,1404,1406		1SS355	
				D1315,1316		UDZS4R7(B)	

Mark No. Description**Part No.****Mark No. Description****Part No.****MISCELLANEOUS**T1302
T1401ATK1160
ATK1159**MISCELLANEOUS**K2011,2014 TEST PIN
CN2001 40P CONNECTORAKX1061
AKM1348**RESISTORS**R1312-1314,1317
R1328
VR1301
Other ResistorsRS1/10S224J
RAB4C472J
CCP1392
RS1/16S###J**RESISTORS**R2001,2003,2008,2020
R2002,2006
R2004,2005,2013,2025
VR2001,2002
Other ResistorsRAB4C470J
RAB4C101J
RAB4C472J
CCP1390
RS1/16S###J**CAPACITORS**C1301,1302,1405,1406
C1308,1401,1407
C1310,1313,1402
C1311
C1312,1403CKSRYB104K16
CEHAT101M25
CKSYB105K25
ACH1451
CKSRYB103K50**CAPACITORS**C2001
C2002-2004
C2005,2006
C2007CEHAT470M16
CKSRYB104K16
CCSRCH331J50
CCSRCH680J50**[50Y RESONANCE BLCOK]****SEMICONDUCTORS**IC2101,2104
IC2102
IC2106
IC2107
Q2101TND307TD
PS9117P
PS2701A-1(L)
AXF1163
2SC2412KQ2103,2106
Q2110,2111
D2101,2112
D2107
D2113QSZ2
2SC4081
UDZS5R6(B)
CRH01
UDZS15(B)**MISCELLANEOUS**L2101
L2103
F2101
2101 DRIVE HEATSINK DK
2102 DRIVE RADIATION SHEET
2103 SCREWATH1217
ATH1216
CTF1449
ANH1653
AEH1092
BMZ30P080FTC**RESISTORS**R2109
R2112,2133
R2113,2114
R2118
R2120ACN1259
ACN1255
RS1/10S4702F
ACN1241
RS1/16S1002FR2121
R2126
R2129
Other ResistorsRS1/16S3302F
RS1/16S4701F
ACN1258
RS1/16S###J**CAPACITORS**C2101,2114
C2102,2115
C2103
C2104,2116
C2107CEHAT470M25
CKSRYF104Z50
CKSRYB104K16
CKSYB105K25
ACG1139C2108-2111
C2113
C2117ACE1178
ACH1450
ACG1138**[50Y SUS BLOCK]****SEMICONDUCTORS**

IC2201,2203,2205,2208

TND307TD

50X SUB DRIVE ASSY**SEMICONDUCTORS**Q1501
Q1502
Q1504,1505
Q1507
D1501FKP280AS
FKP300AS
H5N2512LS
QSZ2
CRH01**MISCELLANEOUS**K1501 TEST PIN
KN1501-1505 GROUND PLATE
CN1501 CONNECTOR 14P
1502 SCREWAKX1061
ANK1841
14R-FJ
PMB30P080FNI**RESISTORS**R1502,1503
R1507,1508
Other ResistorsRS1/10S2R2J
RS1/10S100J
RS1/16S###J**CAPACITORS**C1501
C1503,1504
C1505
C1506ACE1178
ACG1139
ACH1423
CKSYB105K25**[DRIVE HEATSINK M]****MISCELLANEOUS**3001,3001 DRIVE HEATSINK M
3101,3101 SPACERANH1656
ANG2679**RESISTORS**

All Resistors

RS1/16S###J

50 Y MAIN DRIVE ASSY**[50Y LOGIC BLOCK]****SEMICONDUCTORS**IC2001,2003
IC2002
D2001,2006,2007,2011
D2003-2005
D2012TC74ACT541FT
TC74ACT540FT
1SS355
1SS301
1SS355

Mark No. Description**Part No.****Mark No. Description****Part No.****CAPACITORS**

C2401
C2402
C2403,2404
C2405,2407,2412
C2408

ACE1177
ACH1425
CKSRYB104K25
CKSRYB104K16
CEHAT101M16

C2409
C2410
C2411
C2413
C2421

CEHAT470M25
CEHAT101M25
ACH1450
CEHAT221M16
ACH1451

[50Y D-D CON BLOCK]**SEMICONDUCTORS**

IC2501,2502,2504
IC2503
IC2506,2514
Q2501,2506,2511
Q2502,2507

PS2701A-1(L)
BA10358F
TA76431FR
2SD1898
2SA1576A

Q2503,2515
Q2504,2509,2513
Q2505
Q2508
Q2510

DTC143EUA
HN1C01FU
2SC2713
2SA2005
2SA1163

Q2512,2514
Q2520
D2501,2503,2510,2516
D2502,2512,2518
D2504,2508

2SC4081
2SC2412K
CRH01
1SS301
UDZS4R7(B)

D2505,2507,2513,2517
D2509
D2511
D2515,2521
D2519,2520,2523

1SS355
D1FL40
1SS302
UDZS5R1(B)
1SS355

D2522
D2524

UDZS5R6(B)
UDZS15(B)

MISCELLANEOUS

T2501
T2502
T2503

ATK1156
ATK1161
ATK1159

RESISTORS

R2510,2514,2539,2543
R2513
R2523
R2524,2531
R2530,2532

RS1/16S4701F
RAB4C472J
RS1/16S4702F
RS1/10S224J
RS1/16S1501F

R2533
R2536
R2544
R2550
R2554

RS3LMF151J
RS1/16S1002F
RS1/16S4701F
RS1/16S5601F
RS1/16S6801F

VR2501
Other Resistors

CCP1390
RS1/16S###J

CAPACITORS

C2501,2502,2514
C2503,2515 (330 pF/ 100 V)
C2504
C2505,2506,2512
C2507

CEHAT101M25
ACG1105
CKSRYB102K50
CKSRYB104K16
CEHAT221M6R3

SEMICONDUCTORS

IC2601-2603,2607
IC2604-2606
IC2610,2611

TLP116
PS9117P
TC74AC540FT

MISCELLANEOUS

L2601,2611
CN2601 15P CONNECTOR

BTH1134
AKM1200

RESISTORS

R2624
R2631
Other Resistors

RAB4C220J
RS1/10S0R0J
RS1/16S###J

CAPACITORS

C2601,2623
C2602,2603,2611-2617
C2621,2622
C2631

CEHAT101M10
CKSRYB104K16
ACH1450
CKSRYB104K16

50Y SUB DRIVE ASSY**SEMICONDUCTORS**

Q2701
Q2711
Q2721,2723,2725,2726
Q2731
D2701

FKP280AS
FKP300AS
H5N2512LS
QSZ2
CRH01

MISCELLANEOUS

F2701-2706
K2701 TEST PIN
KN2701,2702,2711-2713
GROUND PLATE
CN2701 14P CONNECTOR
2702 SCREW

ATX1062
AKX1061
ANK1841

14R-FJ
PMB30P080FNI

RESISTORS

R2702,2712
R2722,2724,2726,2727
R2732
Other Resistors

RS1/10S2R2J
RS1/10S100J
RS1/10S0R0J
RS1/16S###J

CAPACITORS

C2701
C2702
C2703
C2711,2721
C2731

ACE1178
ACH1423
ACG1088
ACG1139
CKSYB105K25

[DRIVE HEATSINK M]**MISCELLANEOUS**

3001,3001 DRIVE HEATSINK M

ANH1656

5	6	7	8	
Mark No.	Description	Part No.	Mark No.	Description
	3101,3101 SPACER	ANG2679		
RESISTORS			MISCELLANEOUS	
All Resistors	RS1/16S###J		X3302 CRYSTAL OSCILLATOR	ASS1188
			CN3301 CONNECTOR	CKS4835
			RESISTORS	
			R3307,3308	RAB4C101J
			Other Resistors	RS1/16SS###J
			CAPACITORS	
			C3301-3303,3306,3308	CKSSYB104K10
			C3304,3307,3309	CKSSYB472K16
			C3305,3310	CKSSYB102K50
			C3311	CCSRCH470J50
			C3315,3316	CKSSYB104K10
			C3317	CCSRCH471J50
			[SQ ASIC BLOCK]	
			SEMICONDUCTORS	
			IC3401	PEG239A
			MISCELLANEOUS	
			L3401-3403	QTL1013
			F3401,3402	CCG1162
			RESISTORS	
			R3402,3412	RAB4C101J
			R3405-3407,3409,3410	RAB4C220J
			R3416	RAB4C220J
			R3425	RS1/16SS5601F
			Other Resistors	RS1/16SS###J
			CAPACITORS	
			C3401,3402,3419,3425	CEHVKW101M6R3
			C3403-3413,3417,3418	CKSSYB104K10
			C3420-3424,3426-3432	CKSSYB104K10
			C3445-3448	CKSSYB104K10
			[ADDRESS CN BLOCK]	
			SEMICONDUCTORS	
			Q3501,3502	RN1901
			D3501,3502	DAN202U
			MISCELLANEOUS	
			CN3501-3504,3506	AKM1348
			40P CONNECTER	
			CN3505 18P CONNECTOR	VKN1310
			RESISTORS	
			R3519,3520	RAB4C472J
			R3521,3522,3525	RAB4C101J
			R3524	RAB4C222J
			Other Resistors	RS1/16SS###J
			[DIGITAL DD CON BLOCK]	
			SEMICONDUCTORS	
			IC3601	BA80BC0WFP
			MISCELLANEOUS	
			U3601 DD CON UNIT	AXY1137

Mark No. Description**Part No.****Mark No. Description****Part No.****RESISTORS**R3611
Other ResistorsRAB4C101J
RS1/16SS###JR9688
R9692,9693
Other ResistorsRS1/10SR2002F
RAB4CQ103J
RS1/10SR###J**CAPACITORS**C3609
C3611
C3612
C3613CKSSYB104K10
CKSQYB105K16
ACH1394
CKSSYB103K16**CAPACITORS**C9501,9503,9504,9511
C9502
C9505
C9508
C9509CKSRYB104K25
CEHVKW470M16
CKSRYB334K10
ACG1134
CKSRYB103K50**SENSOR ASSY****SEMICONDUCTORS**IC3651
IC3652
Q3651MM1522XU
BR24L02FJ-W
HN1B04FUC9510,9525,9547
C9512
C9514
C9517
C9518,9522,9528-9530CCSRCH102J50
CKSQYB105K16
CKSRYB104K50
ACH1431
CKSRYB104K25**MISCELLANEOUS**CN3651 CONNECTOR 5P
CN3601 PLUG (14P)AKM1276
KM200NA14C9520,9521
C9523
C9524
C9531,9532
C9533-9536,9541-9546CCSRCH470J50
CCSRCH391J50
CKSRYB223K50
CCSRCH100D50
CKSRYB104K25**RESISTORS**

All Resistors

RS1/16SS###J

C9537
C9538
C9540CCSRCH561J50
CEHVKW470M6R3
CCSRCH181J50**CAPACITORS**C3651,3653
C3652,3654
C3656,3657CKSRYB105K6R3
CKSSYB103K16
CKSSYB104K10**[INTERFACE BLOCK]****SEMICONDUCTORS**IC5001
IC5002
IC5003
IC5004
IC5005SN74LV14APW
SN74LVC14APW
BR24C21FJ
BA7657F
TC74LCX157FTS1⚠ IC5006
IC5007
IC5008NJM2846DL3-05
EL5362IUZ-T7
SN74LVC2G126DCTR
BA05FP
2SC4081⚠ IC5009
Q5001-5003,5016,5017Q5018
D5001-5007,5018,5019
D5010,5017,5020,5024
D5011-5013,5021-5023DTC144EUA
UDZS5R6(B)
1SS301
1SS302**MISCELLANEOUS**L5001,5002,5004,5005
L5003
F5001,5002,5025
F5003-5007,5010-5012
F5014-5018,5031-5035BTH1102
BTH1104
DTL1041
OTL1046
OTL1046CN5001 20P CONNECTOR
CN5002,5003 15P D-SUB SOCKETAKM1343
AKP1214**RESISTORS**R5004-5006
R5058,5059,5062,5063
R5061,5065,5071
R5067,5068
R5072,5073,5077,5078RS1/10SR75R0F
RS1/10SR1501F
RS1/10SR7500F
RS1/10SR1501F
RS1/8SQ111JR5074-5076
R5082,5083
Other ResistorsRS1/10SR68R0F
RS1/8SQ0R0J
RS1/10SR###J**CAPACITORS**

C5001,5002,5041,5051

CKSQYB225K16

MAIN ASSY**[CPU BLOCK]****SEMICONDUCTORS**IC9501 MICOM
⚠ IC9502
⚠ IC9503
IC9504
IC9505M30700FKNGP
PQ1U501M2ZPH
NJM2846DL3-33
SN74LVC08APW
BD4727G⚠ IC5006
IC5007
IC5008
⚠ IC5009NJM2846DL3-05
EL5362IUZ-T7
SN74LVC2G126DCTR
BA05FP
2SC4081

Q5001-5003,5016,5017

IC9506
IC9507
IC9508
IC9509
Q9503MC74VHCT132ADT
RTC-4543SA-B-7
24LC128(I)SN
TC74VHCT08AFTS1
2SA1576AQ5018
D5001-5007,5018,5019
D5010,5017,5020,5024
D5011-5013,5021-5023DTC144EUA
UDZS5R6(B)
1SS301
1SS302D9501,9502,9504,9506
D9507
D9508
D95141SS301
RB751S-40
MZ2J73200L
RD3R3S(B1)L5001,5002,5004,5005
L5003
F5001,5002,5025
F5003-5007,5010-5012
F5014-5018,5031-5035BTH1102
BTH1104
DTL1041
OTL1046
OTL1046**MISCELLANEOUS**F9501-9503
⚠ X9501 CRYSTAL RESONATOR
CN9501 CONNECTOR 4P
CN9503 SOCKET
⚠ BT9501 LITHIUM BATTERYDTL1034
ASS1201
AKM1275
AKP1286
AEX1030CN5001 20P CONNECTOR
CN5002,5003 15P D-SUB SOCKETAKM1343
AKP1214**RESISTORS**R5004-5006
R5058,5059,5062,5063
R5061,5065,5071
R5067,5068
R5072,5073,5077,5078RS1/10SR75R0F
RS1/10SR1501F
RS1/10SR7500F
RS1/10SR1501F
RS1/8SQ111JR5074-5076
R5082,5083
Other ResistorsRS1/10SR68R0F
RS1/8SQ0R0J
RS1/10SR###J**CAPACITORS**

C5001,5002,5041,5051

CKSQYB225K16

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Mark No.	Description	Part No.	Mark No.	Description	Part No.
C5003,5004,5035,5036		CKSRYB104K25			
C5005,5014-5019		CKSRYB103K50			
C5007-5009,5034,5059		CEHVKW470M16			
C5010-5012		ACH1444			
C5013		CKSRYB105K10			
C5020		CEHVKW100M16			
C5021-5026		CCSRCH4R0C50			
C5033		CCSRCH471J50			
C5037,5065		ACH1430			
C5042,5043,5052,5057		CKSRYB104K25			
C5044,5046,5048		ACG1142			
C5050,5053,5058		CCSRCH5R0C50			
C5054		CKSRYB334K10			
C5056		ACG1134			
C5060,5062-5064		ACH1431			
C5061		CKSQYB334K50			
[INTERFACE-B BLOCK]					
SEMICONDUCTORS					
IC5301		BU2152FS			
⚠ IC5303		NJM78M09DL1A			
IC5304		MAX7313AEG			
IC5305		SN74LVC2G126DCTR			
IC5306		NJM4580V			
IC5307		TC74VHC541FTS1			
IC5308		NJM2750M			
Q5371,5372		2SC4081			
Q5373		2SA1576A			
D5307		1SS301			
D5375		RB160M-40			
D5376		1SS302			
MISCELLANEOUS					
L5371		BTH1102			
F5301-5303,5371,5372		DTL1041			
F5311,5312		DTL1034			
JA5371-5373 JACK		AKN1075			
CN5301 50P CONNECTOR PBF		AKM1353			
RESISTORS					
R5303		RAB4CQ101J			
R5376,5377		RS1/10SR8200F			
R5394-5397		RS1/10SR2202F			
Other Resistors		RS1/10SR####J			
CAPACITORS					
C5301-5304,5360,5361		CKSRYB104K25			
C5305		CKSRYB104K50			
C5359,5400		ACH1430			
C5362		CEHVKW330M25			
C5363,5391,5401		CKSRYB104K25			
C5371-5374		CCSRCH102J50			
C5375,5376		CKSRYB222K50			
C5377-5380		CCSRCH221J50			
C5381-5384,5398,5399		CKSQYB105K16			
C5385-5388		CCSRCH101J50			
C5389,5390,5402,5403		CKSQYB225K16			
C5393		CEHVKW100M16			
C5395		CEHVKW470M16			
C5396,5397		ACG1134			
Mark No.	Description	Part No.	Mark No.	Description	Part No.
[RGB H/V SELECT A BLOCK]					
SEMICONDUCTORS					
IC5601		IC5601		BA7657F	
IC5602		IC5602		SM5301CS	
IC5603		IC5603		TC74VHC153FT	
IC5604		IC5604		TC74LCX157FTS1	
IC5605		IC5605		BA7078BF	
IC5606		IC5606		SN74LVC2G126DCTR	
Q5601,5603,5604		Q5601,5603,5604		2SC4081	
Q5602,5606		Q5602,5606		2SA1576A	
Q5607		Q5607		DTC144EUA	
MISCELLANEOUS					
L5601,5604,5605		L5601,5604,5605		BTH1104	
L5602,5603,5606,5607		L5602,5603,5606,5607		BTH1102	
RESISTORS					
R5672		R5672		RS1/10SR2700F	
R5673		R5673		RS1/10SR3000F	
Other Resistors		Other Resistors		RS1/10SR####J	
CAPACITORS					
C5616-5618,5636,5638		C5616-5618,5636,5638		CKSQYB105K16	
C5619-5623,5626-5628		C5619-5623,5626-5628		CKSRYB104K25	
C5624,5631,5649-5651		C5624,5631,5649-5651		CEHVKW470M16	
C5625,5629		C5625,5629		CKSQYB225K16	
C5630,5632,5634,5644		C5630,5632,5634,5644		CKSRYB104K25	
C5635,5637,5642		C5635,5637,5642		CKSRYF474Z25	
C5640		C5640		CKSRYB392K50	
C5643,5676		C5643,5676		ACG1134	
C5645		C5645		CCSRCH101J50	
C5646-5648 (47 uF /6.3 V)		C5646-5648 (47 uF /6.3 V)		ACH1444	
C5652-5657,5681		C5652-5657,5681		CKSRYB103K50	
C5658-5663		C5658-5663		CCSRCH4R0C50	
C5670		C5670		CCSRCH471J50	
C5671,5679,5680		C5671,5679,5680		CKSRYB104K25	
C5672		C5672		ACH1430	
C5677		C5677		CCSRCH561J50	
C5678		C5678		CEHVKW470M16	
[RGB H/V SELECT B BLOCK]					
SEMICONDUCTORS					
IC5901		IC5901		BA7657F	
IC5902		IC5902		TC74VHC153FT	
IC5903		IC5903		BA7078BF	
IC5904		IC5904		TC74LCX157FTS1	
IC5905		IC5905		SM5301CS	
Q5901,5903		Q5901,5903		2SA1576A	
Q5902,5904,5905		Q5902,5904,5905		2SC4081	
D5901-5903		D5901-5903		1SS302	
MISCELLANEOUS					
L5901-5903		L5901-5903		BTH1102	
L5904,5905,5907		L5904,5905,5907		BTH1104	
RESISTORS					
R5930		R5930		RS1/10SR2700F	
R5931		R5931		RS1/10SR3000F	
Other Resistors		Other Resistors		RS1/10SR####J	

Mark No. Description**Part No.****Mark No. Description****Part No.****CAPACITORS**

C5901-5903 (47 uF /6.3 V)
 C5904-5906,5910-5912
 C5907-5909,5939,5941
 C5913-5918
 C5925,5942

ACH1444
 CKSRYB103K50
 CEHVKW470M16
 CCSRCH4R0C50
 CKSQYB225K16

C5926,5928,5929,5940
 C5927
 C5930 (100 uF/ 16 V)
 C5934,5945
 C5935-5937,5956,5958

CKSRYB104K25
 CCSRCH471J50
 ACH1430
 ACG1134
 CKSQYB105K16

C5938
 C5946-5949,5954,5962
 C5952
 C5955,5957,5960
 C5961

CCSRCH561J50
 CKSRYB104K25
 CKSRYB392K50
 CKSRYF474Z25
 CCSRCH101J50

C5964,5966-5968
 C5970

CKSRYB104K25
 CEHVKW470M16

[VIDEO SLOT OE BLOCK]**SEMICONDUCTORS**

IC6301
 IC6302,6304

PD6435A
 IDT2305A

MISCELLANEOUS

F6301,6302,6304
 △ X6301 CERAMIC RESONATOR
 CN6301,6302 50P CONNECTOR PBF
 △ FU6301 PROTECTOR(4.5A)

BTX1041
 ASS1169
 AKM1353
 AEK1082

RESISTORS

R6301-6312
 R6313-6324
 R6334-6345
 R6356,6364
 Other Resistors

RAB4CQ103J
 RAB4CQ220J
 RAB4CQ470J
 RAB4CQ102J
 RS1/10SR###J

CAPACITORS

C6301-6313,6315,6316
 C6320
 C6321-6337
 C6338,6340,6343

CKSRYB104K25
 CEHVKW470M6R3
 CKSRYB103K50
 CKSRYB104K25

[A/D A BLOCK]**SEMICONDUCTORS**

IC6501
 △ IC6502
 IC6503
 Q6501-6503
 D6501

TDA8754HL/14/C1
 NJM2846DL3-33
 SN74LVC1G125DCK
 2SA1576A
 1SS301

MISCELLANEOUS

L6501
 L6502
 F6501-6505

ATH1127
 ATL1148
 BTX1041

RESISTORS

R6501-6503
 R6510,6513,6516
 R6512,6515,6518
 Other Resistors

RS1/8SQ0R0J
 RS1/10SR4300F
 RS1/10SR18R0F
 RS1/10SR###J

CAPACITORS

C6501,6503
 C6502,6506,6508,6510
 C6504
 C6505,6507,6509,6517
 C6511 (100 uF/ 16 V)

CEHVKW221M10
 CKSRYB104K25
 CKSQYB225K16
 CKSQYB105K16
 ACH1430

C6512-6514,6520,6522
 C6515
 C6516
 C6518,6523,6524,6529
 C6519,6521

CKSRYB104K25
 CKSRYB224K16
 CCSRCH681J50
 CKSQYB105K16
 CCSRCH331J50

C6525,6526,6528,6531
 C6527,6532,6537
 C6530,6534,6535
 C6533,6536,6538-6550
 C6552,6553

CKSRYB104K25
 CKSRYB472K50
 CKSQYB105K16
 CKSRYB104K25
 CKSRYB104K25

[A/D B BLOCK]**SEMICONDUCTORS**

IC6701
 △ IC6702
 IC6703
 Q6701-6703
 D6701

TDA8754HL/14/C1
 NJM2846DL3-33
 SN74LVC1G125DCK
 2SA1576A
 1SS301

MISCELLANEOUS

L6701
 L6702
 F6701-6705

ATH1127
 ATL1148
 BTX1041

RESISTORS

R6701-6703
 R6710,6713,6716
 R6712,6715,6718
 Other Resistors

RS1/8SQ0R0J
 RS1/10SR4300F
 RS1/10SR18R0F
 RS1/10SR###J

CAPACITORS

C6701,6706,6708,6710
 C6702,6703
 C6704
 C6705,6707,6709,6717
 C6711 (100 uF/ 16 V)

CKSRYB104K25
 CEHVKW221M10
 CKSQYB225K16
 CKSQYB105K16
 ACH1430

C6712-6714,6720,6722
 C6715
 C6716
 C6718,6723,6724,6729
 C6719,6721

CKSRYB104K25
 CKSRYB224K16
 CCSRCH681J50
 CKSQYB105K16
 CCSRCH331J50

C6725,6726,6728,6731
 C6727,6732,6737
 C6730,6734,6735
 C6733,6736,6738-6750
 C6752,6753

CKSRYB104K25
 CKSRYB472K50
 CKSQYB105K16
 CKSRYB104K25
 CKSRYB104K25

[DVI RECEIVER BLOCK]**SEMICONDUCTORS**

IC7001
 IC7002,7005
 △ IC7003,7006
 IC7004
 Q7001,7002,7004

SII1169CTU-P
 BR24L02FJ-W
 PQ20WZ11
 SN74AHC2G66HDCT
 DTC144EUA

Q7003

SM6K2

5		6		7		8
Mark No.	Description	Part No.		Mark No.	Description	Part No.
Q7005		2SC2412K		C8042,8043,8045,8046		CKSRYF104Z50
D7001,7010-7012		1SS302		C8047,8049		CKSRYB103K50
D7002-7009		MA147		C8048,8050,8051,8055		CKSRYF104Z50
				C8057		CKSRYF104Z50
MISCELLANEOUS				[SDRAM OSD BLOCK]		
F7002,7003,7005-7010		DTL1041		SEMICONDUCTORS		
F7004		BTX1041		IC8101-8104		K4S643232H-TC60
CN7001 DVI CONNECTOR		AKP1282		IC8105		PD6545A
RESISTORS				MISCELLANEOUS		
R7008		RS1/10SR1801F		F8101-8105		DTL1041
R7011,7025		RS1/10SR2001F		RESISTORS		
R7012		RS1/10SR3900F		R8108		RAB4CQ103J
R7024		RS1/10SR5100F		All Resistors		RS1/10SR###J
R7039,7054		RS1/8SQ0R0J		CAPACITORS		
R7042-7053		RAB4CQ470J		C8101-8105,8107-8116		CKSRYF104Z50
Other Resistors		RS1/10SR###J		C8106,8117,8129,8140		CKSQYB225K16
CAPACITORS				C8118-8128,8130-8139		CKSRYF104Z50
C7001,7031		CKSQYB334K50		C8141-8151		CKSRYF104Z50
C7002,7004-7006		CEHVKW101M6R3		[LVDS TRANSMITTER BLOCK]		
C7003,7007,7008,7010		CKSRYB104K25		SEMICONDUCTORS		
C7009,7011,7013,7015		CCSRCH101J50		IC8501		THC63LVD103F
C7012,7014,7017		CKSRYB104K25		IC8503		TC74LCX157FST1
C7016		CCSRCH331J50		Q8503,8504		2SC4081
C7018,7020		CEHVKW220M16		MISCELLANEOUS		
C7019		CKSRYB103K50		F8501		BTX1041
C7021-7028,7033		CKSRYB104K25		F8503		DTL1041
C7032		ACH1430		CN8501 CONNECTOR		AKM1340
[PASTEL BLOCK]				CN8502 20P CONNECTOR		AKM1343
SEMICONDUCTORS				RESISTORS		
IC8001		PE5525A		All Resistors		RS1/10SR###J
⚠ IC8002		SI-3011ZD		CAPACITORS		
⚠ IC8003		PQ1MX55M2SPQ		C8501		ACH1430
D8001,8002		1SS301		C8502-8504,8508,8510		CKSRYB104K25
MISCELLANEOUS				C8505		CKSRYB105K10
L8001-8004		BTH1104		C8506,8507		CKSRYB103K50
F8001-8003		BTX1041		[FAN CONTROL ETC. BLOCK]		
F8004,8005		DTL1041		SEMICONDUCTORS		
⚠ X8001 CRYSTAL RESONATOR(90 MHz)	ASS1199			⚠ IC9001		PQ20WZ11
⚠ X8002 CRYSTAL RESONATOR(143 MHz)	ASS1198			IC9002		PQ200WNA1ZPH
⚠ FU8001,8003 PROTECTOR (6.3 A)	AEK1084			Q9001,9002,9007		2SC4081
⚠ FU8002 PROTECTOR (1 A)	AEK1073			Q9003,9004		2SA1576A
RESISTORS				Q9008		DTC144EUA
R8003		RS1/10SR3901F		D9001,9003,9005		1SS301
R8004		RS1/10SR1002F		D9006		1SS302
R8006-8008,8033		RS1/8SQ1R0J		MISCELLANEOUS		
R8043		RS1/10SR3001F		F9002,9003,9010,9011		BTX1041
R8044		RS1/10SR1302F		KN9001-9004 GROUND PLATE		VNF1109
R8045-8051		RAB4CQ101J		CN9001 CONNECTOR 9P		AKM1280
Other Resistors		RS1/10SR###J		CN9003,9004,9011 CONNECTOR 3P		AKM1274
CAPACITORS				CN9006,9012 CONNECTOR 7P		AKM1278
C8001		CEHVKW470M16		[FAN CONTROL ETC. BLOCK]		
C8002,8004,8008-8021		CKSRYF104Z50		SEMICONDUCTORS		
C8003,8022		CEHVKW101M6R3		⚠ IC9001		PQ20WZ11
C8006		CKSQYB225K16		IC9002		PQ200WNA1ZPH
C8007 (100 uF/ 16 V)		ACH1430		Q9001,9002,9007		2SC4081
C8023-8037,8039,8040		CKSRYF104Z50		Q9003,9004		2SA1576A
C8038,8041,8044,8056		CEHVKW470M6R3		Q9008		DTC144EUA

Mark No. Description**Part No.****Mark No. Description****Part No.**

CN9007 CONNECTOR 6P
 CN9008 CONNECTOR 8P
 CN9010 40P TOP CONNECTOR
 ⚠ FU9001,9003 PROTECTOR (4.5 A)
 ⚠ FU9002 PROTECTOR (6.3 A)

AKM1277
 AKM1279
 AKM1342
 AEK1082
 AEK1084

RESISTORS

R9018,9109
 R9019
 R9020
 R9021
 R9027,9028

RS1/10SR2001F
 RS1/10SR5601F
 RS1/10SR1502F
 RS1/10SR6801F
 RS1/8SQ221J

R9032,9043-9054
 R9033
 R9037,9038
 R9069-9080,9082-9084
 R9090-9101

RS1/8SQ0R0J
 RS1/8SQ470J
 RS1/8SQ102J
 RS1/8SQ0R0J
 RS1/8SQ0R0J

R9107
 R9108
 Other Resistors

RS1/10SR3301F
 RS1/10SR2702F
 RS1/10SR###J

CAPACITORS

C9001
 C9002
 C9003
 C9007
 C9008

CKSRYF104Z50
 CEHVKW470M16
 ACH1431
 CKSRYB103K50
 CKSQYB105K16

C9009
 C9010

CEHVKW330M25
 CKSRYB104K25

VSIF ASSY**SEMICONDUCTORS**

IC4001
 ⚠ IC4002
 IC4003
 Q4001-4003
 Q4004

24LC01B
 LM75BIMX-3
 PQ200WNA1ZPH
 HN1A01FU
 2SC4081

Q4005
 D4020,4021
 D4022

DTC144EUA
 UDZS5R6(B)
 1SS302

MISCELLANEOUS

F4001
 KN4001,4002 GROUND PLATE
 CN4001 CONNECTOR 13P
 CN4002-4004 50P CONNECTOR PBF
 CN4005 20P CONNECTOR

OTL1046
 VNF1109
 AKM1299
 AKM1353
 AKM1343

CN4006 PCI SOKET184

AKP1251

RESISTORS

R4002
 R4004
 R4005,4010,4015
 R4007,4012,4017
 R4008,4013,4018

RS1/10SR2201F
 RS1/10SR1001F
 RS1/10SR1002F
 RS1/10SR1502F
 RS1/10SR1202F

R4009,4014
 R4022,4024
 R4040,4041,4047-4050
 R4045
 R4046

RS1/10SR3302F
 RS1/10SR4701F
 RS1/8SQ0R0J
 RS1/10SR8201F
 RS1/10SR2001F

Other Resistors

CAPACITORS

C4001
 C4002-4007,4020,4022
 C4023
 C4024
 C4025

C4026,4027
 C4028
 C4029
 C4030,4035
 C4033,4034

SENB ASSY**SEMICONDUCTORS**

⚠ IC1001

MISCELLANEOUS

F1001,1003
 CN1001 CONNECTOR 8P

RESISTORS

R1003
 Other Resistors

CAPACITORS

C1002
 C1003
 C1005

RS1/10SR###J

ACG1134
 CKSRYB104K25
 CCSRCH181J50
 CCSRCH151J50
 CCSRCH101J50

CCSRCH271J50
 CKSRYB103K50
 CEHVKW330M25
 CKSRYB104K25
 CKSQYB474K25

LM75BIMX-3

OTL1046
 AKM1279

RS1/8SQ0R0J
 RS1/10SR###J

CKSRYB104K25
 CCSRCH151J50
 CCSRCH181J50

SENC ASSY**SEMICONDUCTORS**

⚠ IC1101

MISCELLANEOUS

F1101-1103
 CN1101 CONNECTOR 4P

RESISTORS

All Resistors

CAPACITORS

C1102
 C1103
 C1105

LM75BIMX-3

OTL1046
 AKM1275

RS1/10SR###J

CKSRYB104K25
 CCSRCH391J50
 CCSRCH271J50

SEND ASSY**SEMICONDUCTORS**

⚠ IC1201

MISCELLANEOUS

F1201,1203
 CN1201 CONNECTOR 8P

RESISTORS

R1203
 Other Resistors

LM75BIMX-3

OTL1046
 AKM1279

RS1/8SQ0R0J
 RS1/10SR###J

5	6	7	8
Mark No.	Description	Part No.	Mark No.
CAPACITORS			Description
C1202	CKSRYB104K25	C3078	ACH1463
C1203	CCSRCH391J50	C3082	CKSRYB103K50
C1205	CCSRCH181J50	C3083,3084	CKSRYB104K50
AUDIO ASSY		COMMSLOT ASSY	
SEMICONDUCTORS		SEMICONDUCTORS	
IC3001	R2S15900	IC2001,2002	MC74VHCT132ADT
⚠ IC3002	M61571AFP	IC2003	MAX3222IPER
⚠ IC3004	NJM78M09DL1A	IC2004,2005	TC74VHC00FT
Q3003,3005,3006,3008	2SA1576A	IC2006,2007	TC74VHC125FT
Q3004,3009	2SC4081	D2001-2010,2022,2023	UDZS16(B)
Q3007	DTC143ZUA	D2011-2014	DAN217U
D3001	DAN217U	D2021	UDZS3R6(B)
⚠ D3003-3006	RB160M-40	MISCELLANEOUS	
D3007	RD10S(B3)	JA2002,2003 6PIN MINI-DIN JACK	AKP1254
		CN2001 9P D-SUB SOCKET	AKP1213
		2001	VNE1949
MISCELLANEOUS		RESISTORS	
L3001-3004	ATH1189	R2019,2020	RS1/8SQ0R0J
L3005,3006	BTH1102	Other Resistors	RS1/10SR###J
F3001-3003	OTL1046	CAPACITORS	
F3006-3009	BTX1041	C2001-2007	CCSRCH101J50
KN3001-3003 EARTH METAL FITTING	VNF1109	C2008,2011-2013,2016	CKSRYB104K50
⚠ CN3001 SPEAKER TERMINAL 4-P	AKE1062	C2009,2010	CKSRYB104K25
CN3003 CONNECTOR 6P	AKM1277	C2014,2015,2019-2021	CCSRCH471J50
CN3004 CONNECTOR 9P	AKM1280	C2017,2022-2024	CKSRYB104K50
RESISTORS		C2018	CEHVKW470M16
R3005,3006	RS1/8SQ221J	COMMSLOT IF ASSY	
R3014,3019	RS1/10SR3902F	SEMICONDUCTORS	
R3015,3018	RS1/10SR1502F	IC2301	TC74VHC00FT
R3023	ACN1243	Q2301,2351	2SC4081
R3025-3027,3047-3049	RS1/8SQ0R0J	Q2302	DTC144EUA
R3035-3038	RS1/16S563J	Q2350	HN1A01FU
R3054,3056,3059,3060	RS1/8SQ103J	MISCELLANEOUS	
R3061-3066	RS1/8SQ0R0J	CN2302 40P SIDE CONNECTOR	AKM1347
Other Resistors	RS1/10SR###J	CN2303 EDGE CARD CONN 46P	AKP1252
CAPACITORS		CN2301 L PLUG (8P)	KM200NA8L
C3001,3057	ACH1430	RESISTORS	
C3002,3015,3030,3031	CKSQYB105K16	R2313	RS1/8SQ0R0J
C3008	CKSRYB153K50	R2350	RS1/10SR1502F
C3016,3019,3026,3029	CCSRCH561J50	R2351,2353	RS1/10SR1202F
C3017,3018,3027,3028	CCSRCH560J50	R2354	RS1/10SR1002F
C3020,3025	CCSRCH680J50	R2355	RS1/10SR2201F
C3021	CKSRYB224K16	Other Resistors	RS1/10SR###J
C3022	CEHVKW100M16	CAPACITORS	
C3023	CEHVKW470M16	C2301	CKSRYB104K50
C3024,3032,3034,3038	CKSRYB104K25	C2350,2351	CKSRYB104K25
C3033,3039,3054	ACH1464	KEY ASSY	
C3036,3037,3042	CKSQYB105K16	SEMICONDUCTORS	
C3040,3055,3056,3063	CKSRYB104K25	IC2201	PD5719A
C3043,3044,3048,3049	CFTLA474J50		
C3045,3046,3051,3052	ACG1130		
⚠ C3066-3069	CFTLA104J50		
C3070	CCSRCH102J50		
C3071	CKSRYB104K25		
C3072	CEHVKW220M16		
C3074,3075	ACG1132		
C3076,3077	ACG1133		

Mark No. DescriptionQ2201
D2201**Part No.**2SC4081
1SS355**Mark No. Description**R172
Other Resistors**Part No.**RS1/8SQ0R0J
RS1/16SS###J**MISCELLANEOUS**S2201-2208
⚠ X2201 CERALOCK (3.84MHz)
CN2201 3PIN CONNECTORVSG1020
ASS1162
S3B-EH**CAPACITORS**C101
C102,103,105
C104,106
C107-111,130-132ACH1462
CKSSYB104K10
CKSSYB103K16
CKSSYB104K10**RESISTORS**R2204,2207
R2210
Other ResistorsRS1/10SR2202F
RAB4CQ182J
RS1/10SR###J**DD ASSY****SEMICONDUCTORS**⚠ IC301
⚠ IC302
⚠ IC303
⚠ IC305
⚠ Q301LM3478MMX
MP2367DN-LF
NCP521IBDG
MD3222N
UPA1725G⚠ Q302,303
Q304-306
⚠ D301
⚠ D302
⚠ D303,306TPC8021H
2SC4081
M2FM3
1SMA8.0AG
D1FM3**SEMICONDUCTORS**Q2401
Q2403-2405
Q2406
D2401
D2402HN1B04FU
2SC4081
2SA1576A
S9561
SPR-39MVWFD304
D307,312
D308RB551V-30
1SS352
UDZS5R1(B)**MISCELLANEOUS**CN2401 CONNECTOR 8P
U2401 REMOTE RECEIVER UNITAKM1294
RPM6940-V4**MISCELLANEOUS**L301
L302
L303
L304
L305ATH1221
ATH1220
ATH1218
ATH1219
ATH1222**RESISTORS**R2416-2419
All ResistorsRS1/8SQ130J
RS1/10SR###J**CAPACITORS**C2401,2405,2409
C2402-2404
C2407,2408CKSRYB104K25
CKSRYF105Z16
CEHVKW470M16L306-308,310,311
L309
F301,303 PROTECTOR (10A)
KN301,303 GROUND PLATE
CN301 CONNECTOR 3PBTX1042
BTX1039
BTX1041
VNF1109
B3P-VH**LVDS ASSY****SEMICONDUCTORS**IC101
Q101THC63LVD104AF
2SC4081CN309 PLUG (6P)
CN304 PLUG (10P)
CN307 PLUG (12P)
CN302 PLUG (13P)
⚠ FU301,302 PROTECTOR (10A)KM200NA6
KM200NA10
KM200NA12
KM200NA13
AEK1085CN311 PLUG (4P)
CN312 PLUG (5P)
CN305 PLUG (7P)
CN306 PLUG (8P)KM200NA4
KM200NA5
KM200NA7
KM200NA8**RESISTORS**R302
R303
R304
R305
R306-309,330-333RS1/10SR1002F
RS1/10S4302F
RS1/10S2701F
RS1/10S681J
ACN1265**MISCELLANEOUS**F101,102,105,106
KN101
CN101 CONNECTOR
CN102 20P CONNECTOR
CN103 50P CONNECTOR PBFBTX1041
VNF1109
AKM1340
AKM1343
AKM1353CN104 20P FFC CONNECTOR
CN106 CONNECTOR 3P
⚠ FU102 PROTECTOR (1A)AKM1235
AKM1289
AEK1073**RESISTORS**R101-106
R107-109,112
R115
R116-118
R156RS1/16SS1000F
RAB4CQ470J
RS1/16S220J
RAB4CQ470J
RS1/8SQ103JR314
R315
R316
R317
R319,326RS1/16S1201F
RS1/10SR3902F
RS1/16S9101F
RS1/16S1303F
RS1/16S100JR320
R322RS1/16S5102F
RS1/16S101J

5	6	7	8
Mark No.	Description	Part No.	
R323,334,336	RS1/10SR1001F		
R324	RS1/10SR2201F		
R325	RS1/16S1200F		
R335	RS1/10SR1302F		A
R339	RS1/16S183J		
R352-354,379-383	RS1/10S0R0J		
R373	RS1/10S4R7J		
R374,405	RS1/10S100J		
R375,377,378	RS1/10S103J		
R384,385	RS1LMFR68J		
R386	ACN1265		
R388-390	RS1/10S511J		
R391	RS1/16SS104J		
R397	ACN1266		B
R398	RS1/10S0R0J		
R402	RS1/16S0R0J		
Other Resistors	RS1/10SR###J		
CAPACITORS			
C301,313,320	ACH1459		
C302,303,314,321	CKSRYB104K25		
C304	CCSRCH101J50		
C305,308	CKSRYB103K50		
C306	ACH1458		
C307,311,312,349	CCG1195		
C309	CKSRYB272K50		C
C310,315	CKSRYB474K10		
C316,317,351,352	CCSRCH102J50		
C318	CKSRYB681K50		
C322	CKSRYB334K10		
C323	ACH1462		
C324	CKSRYB222K50		
C325,345	CKSRYB105K10		
C326	CKSYB105K25		
C327,328	ACH1461		
C329	CKSRYB104K50		
C330	CKSRYB102K50		D
C332,336-338,350	CKSRYB104K25		
C334,335	CCH1687		
C339,340,343,344	CKSQYB105K16		
C341	CKSQYB474K25		
C342	BCG1060		
C346	CCSRCH151J50		
C353	CKSRYB104K25		

POWER SUPPLY UNIT

POWER SUPPLY Unit has no service part.

A



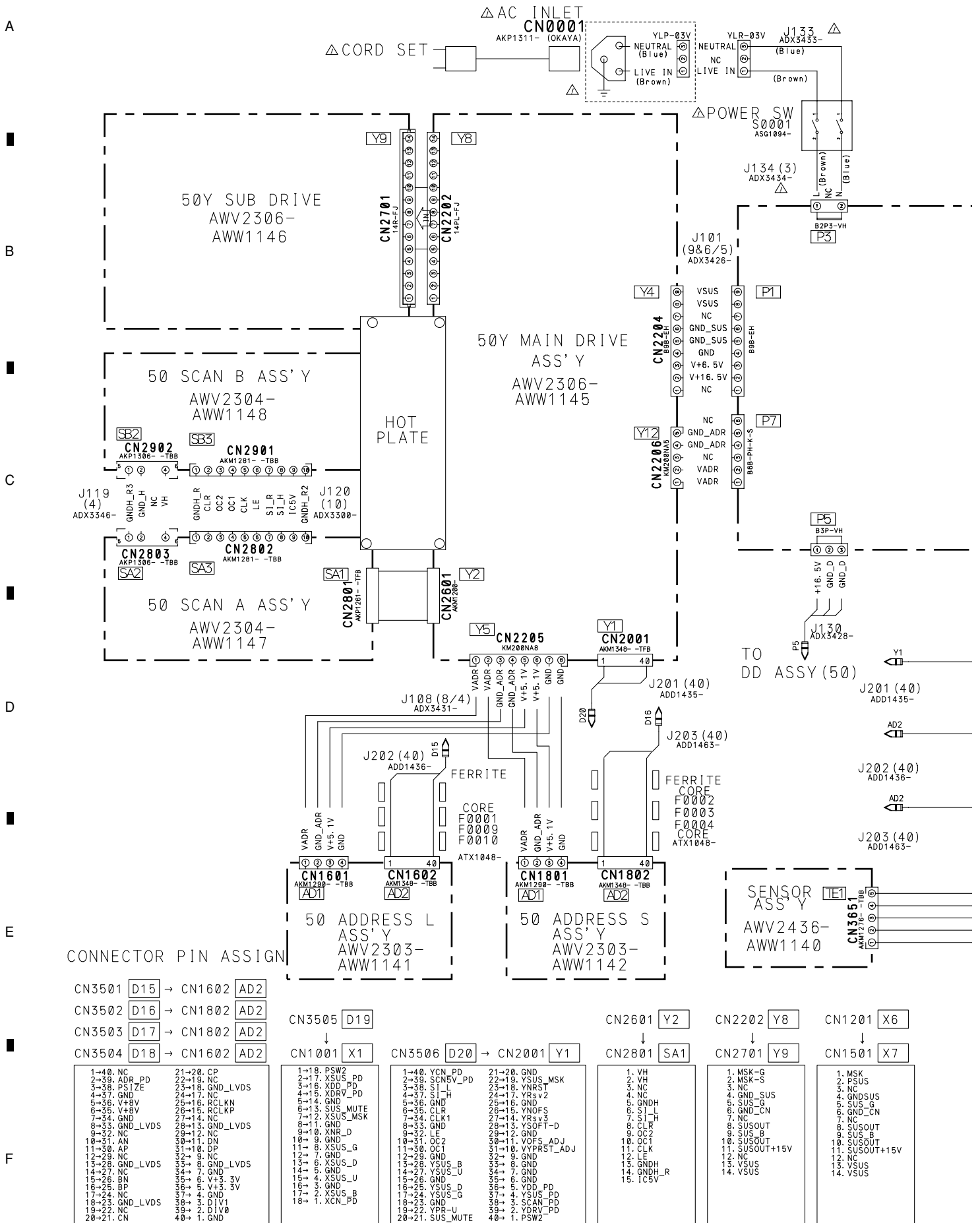
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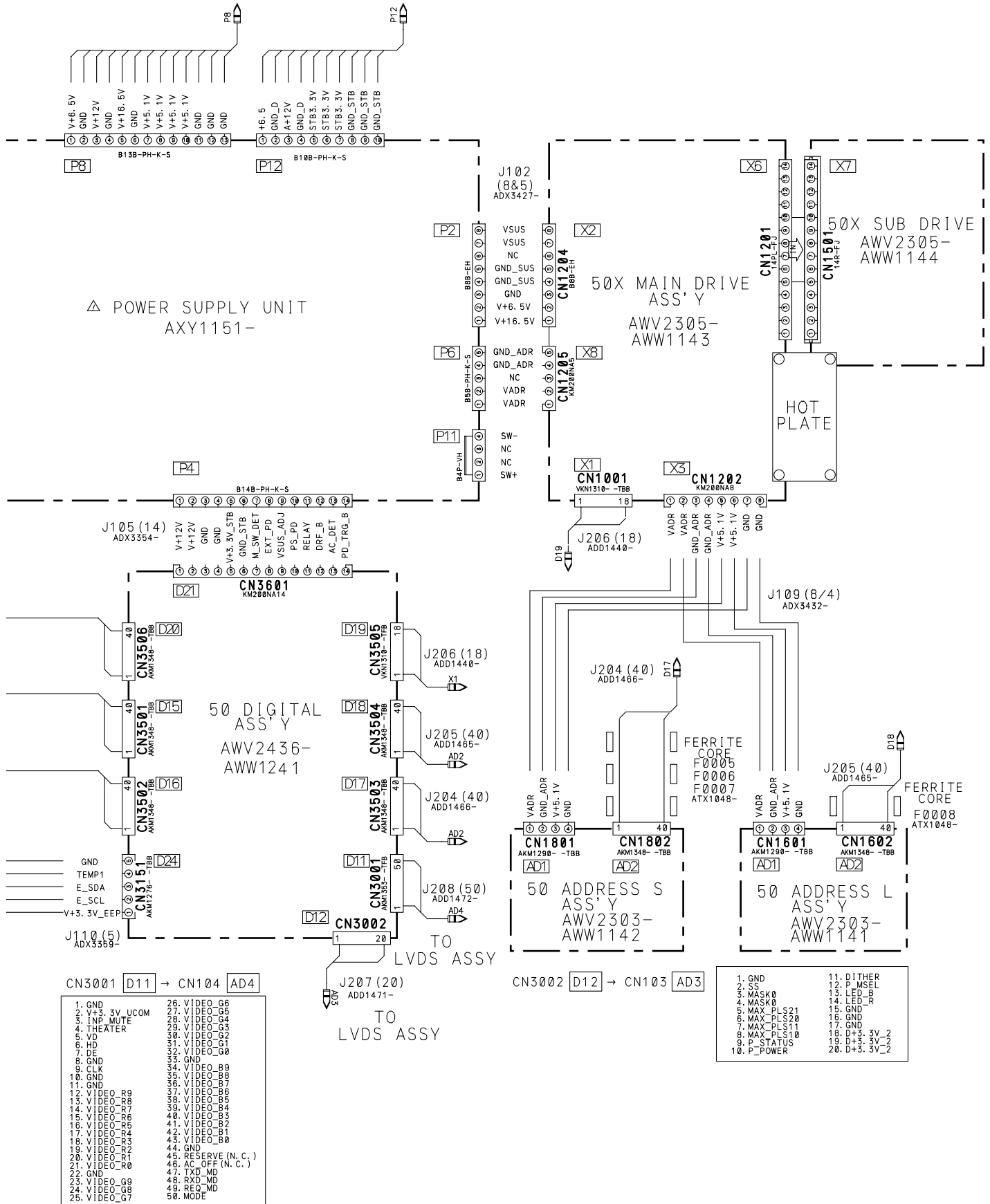
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4.2 OVERALL CONNECTION DIAGRAM (2/2)

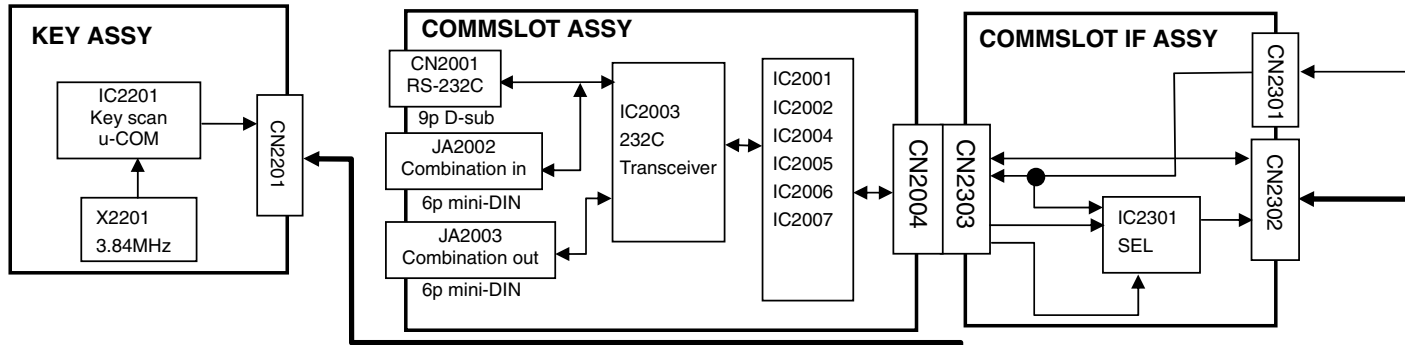


TO DD ASSY (50)
J106 ADX3355-

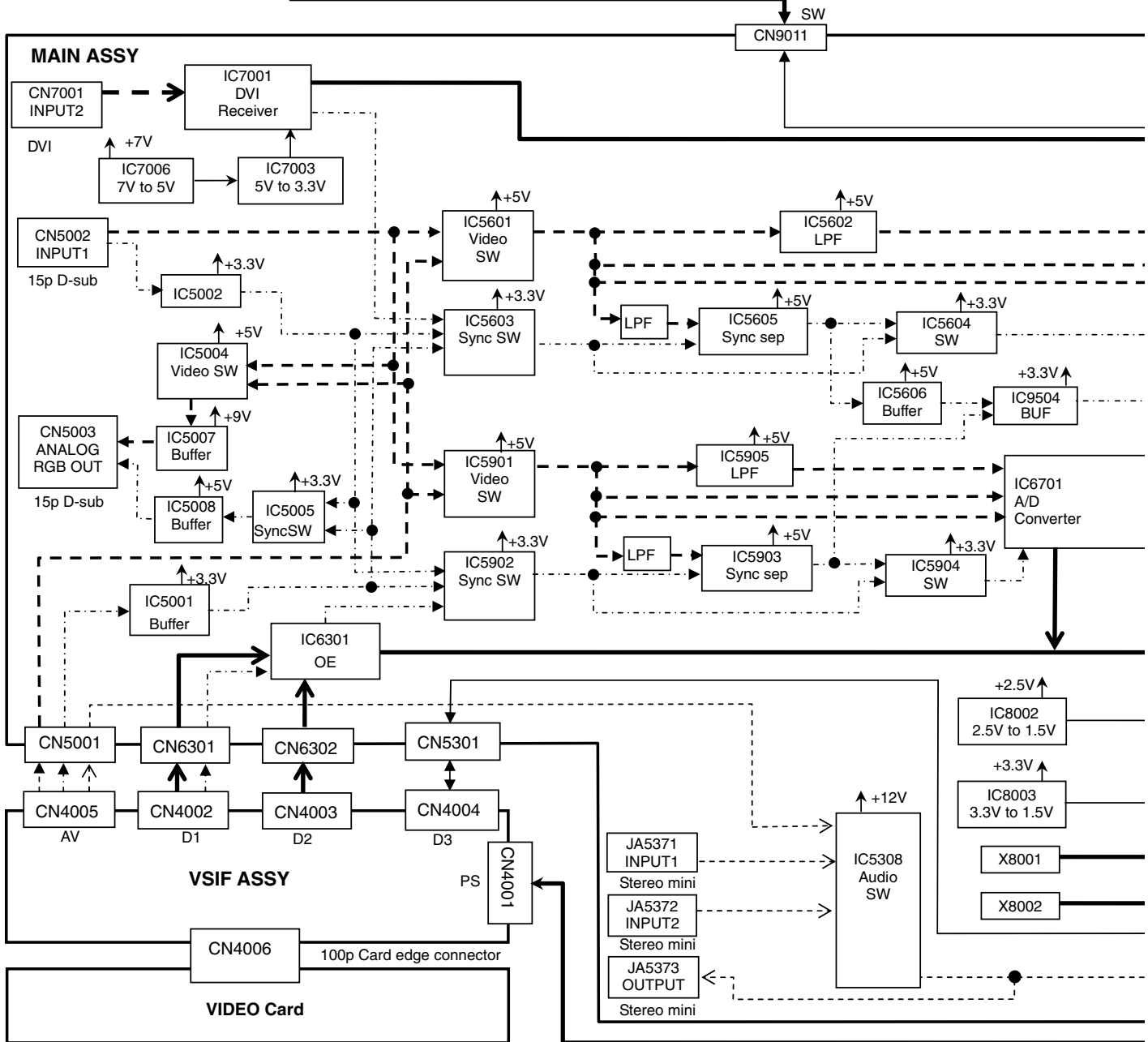


4.3 OVERALL BLOCK DIAGRAM (1/2)

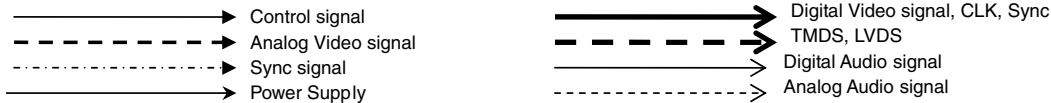
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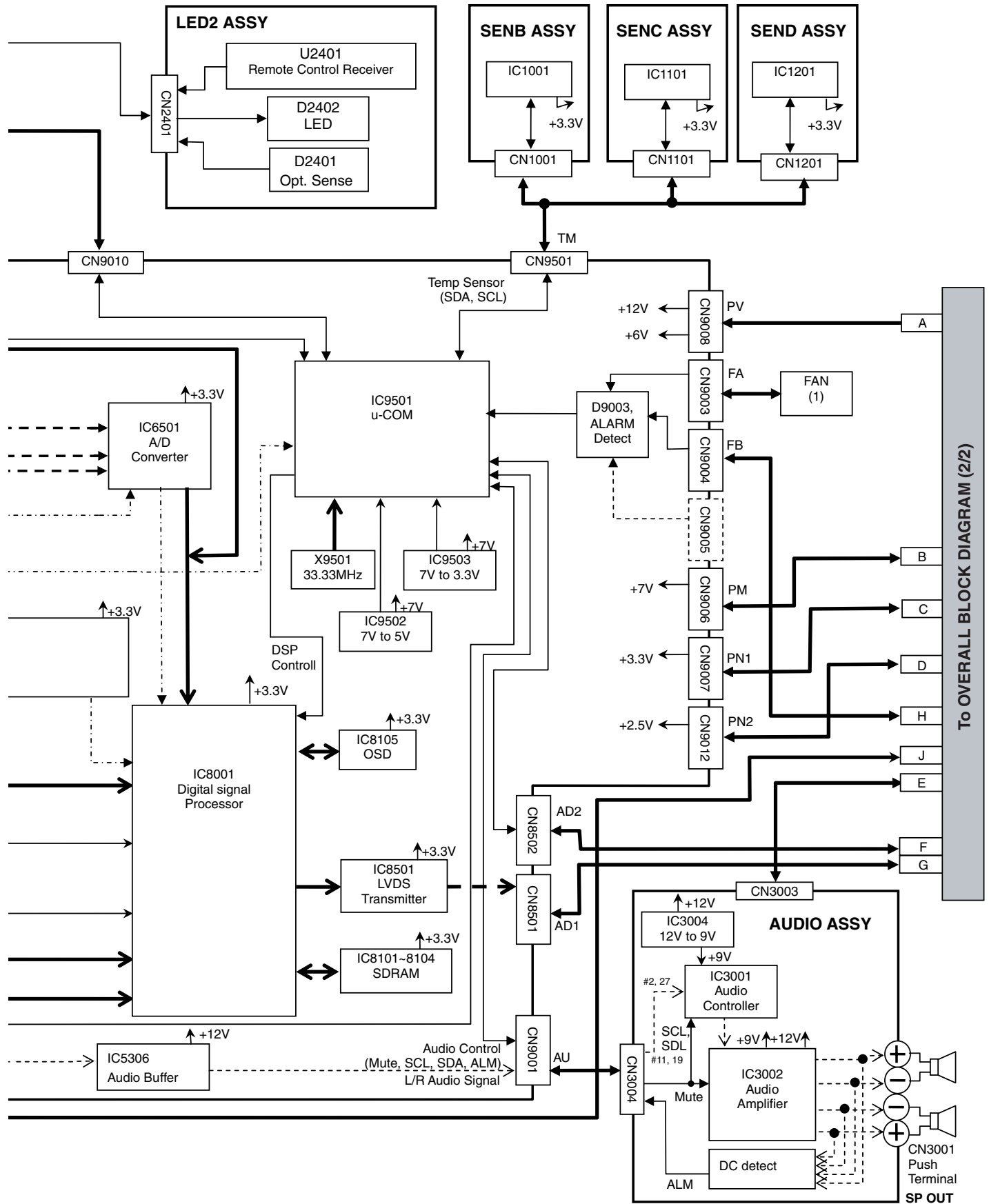


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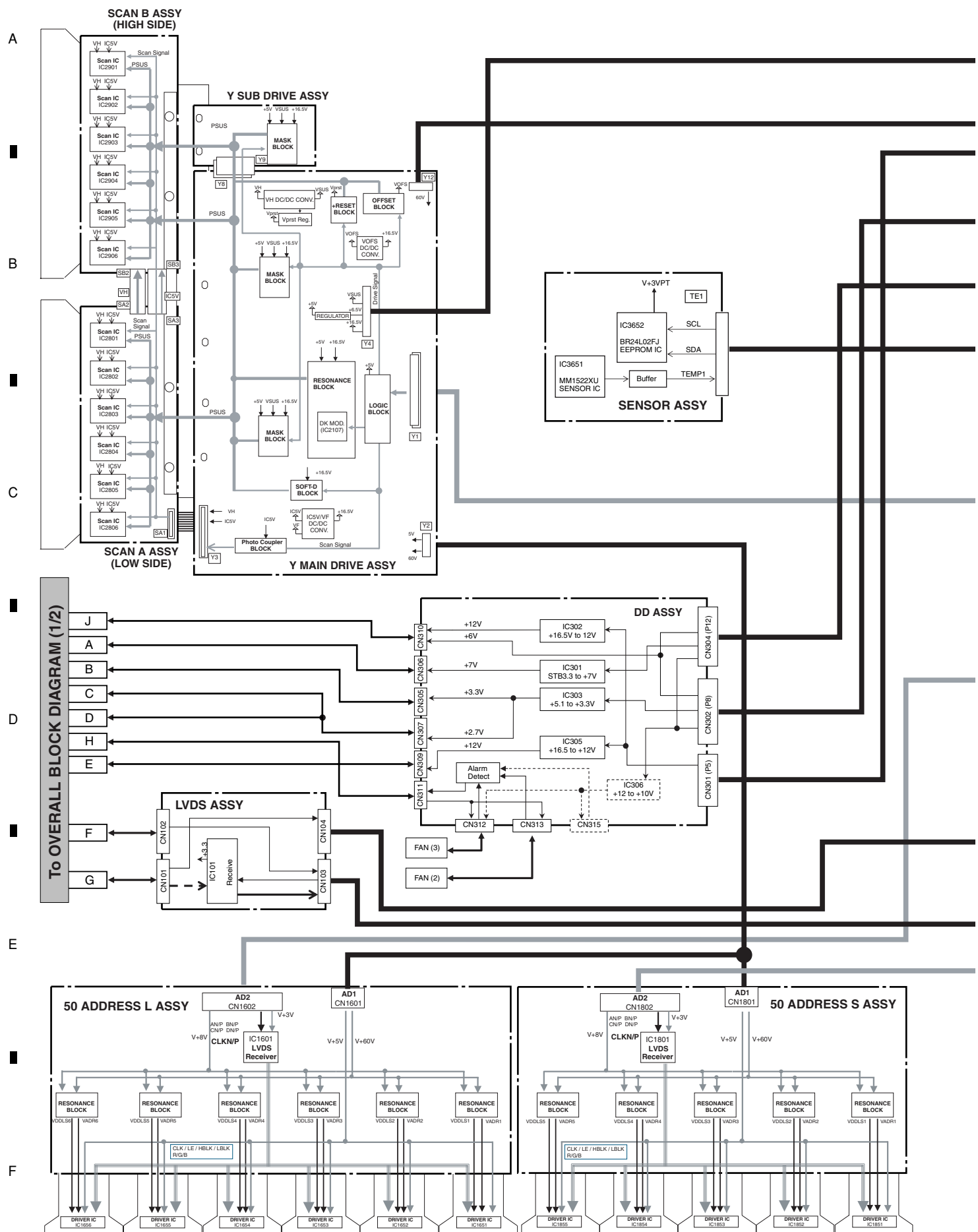


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4.4 OVERALL BLOCK DIAGRAM (2/2)



4.5 MAIN ASSY

A

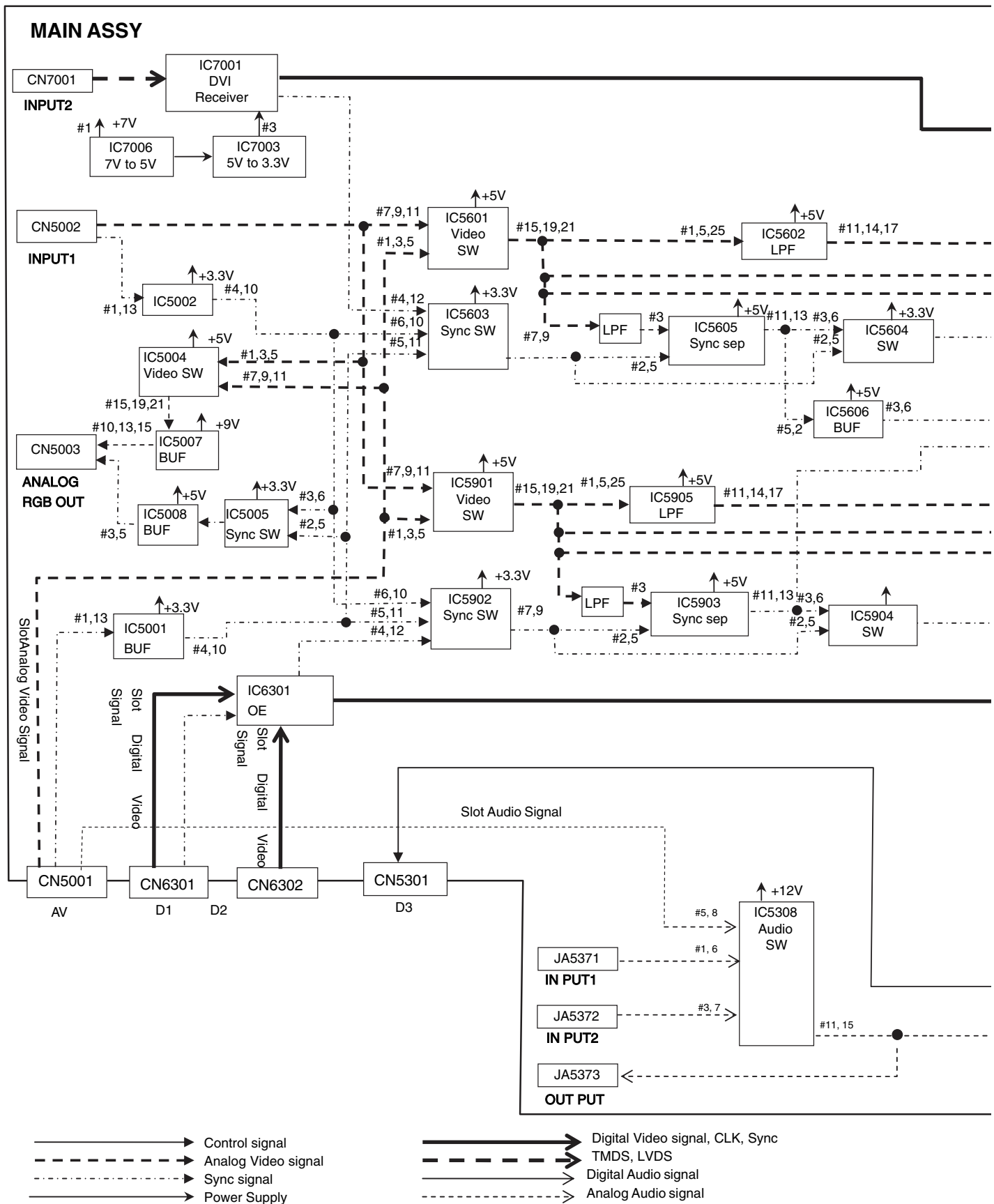
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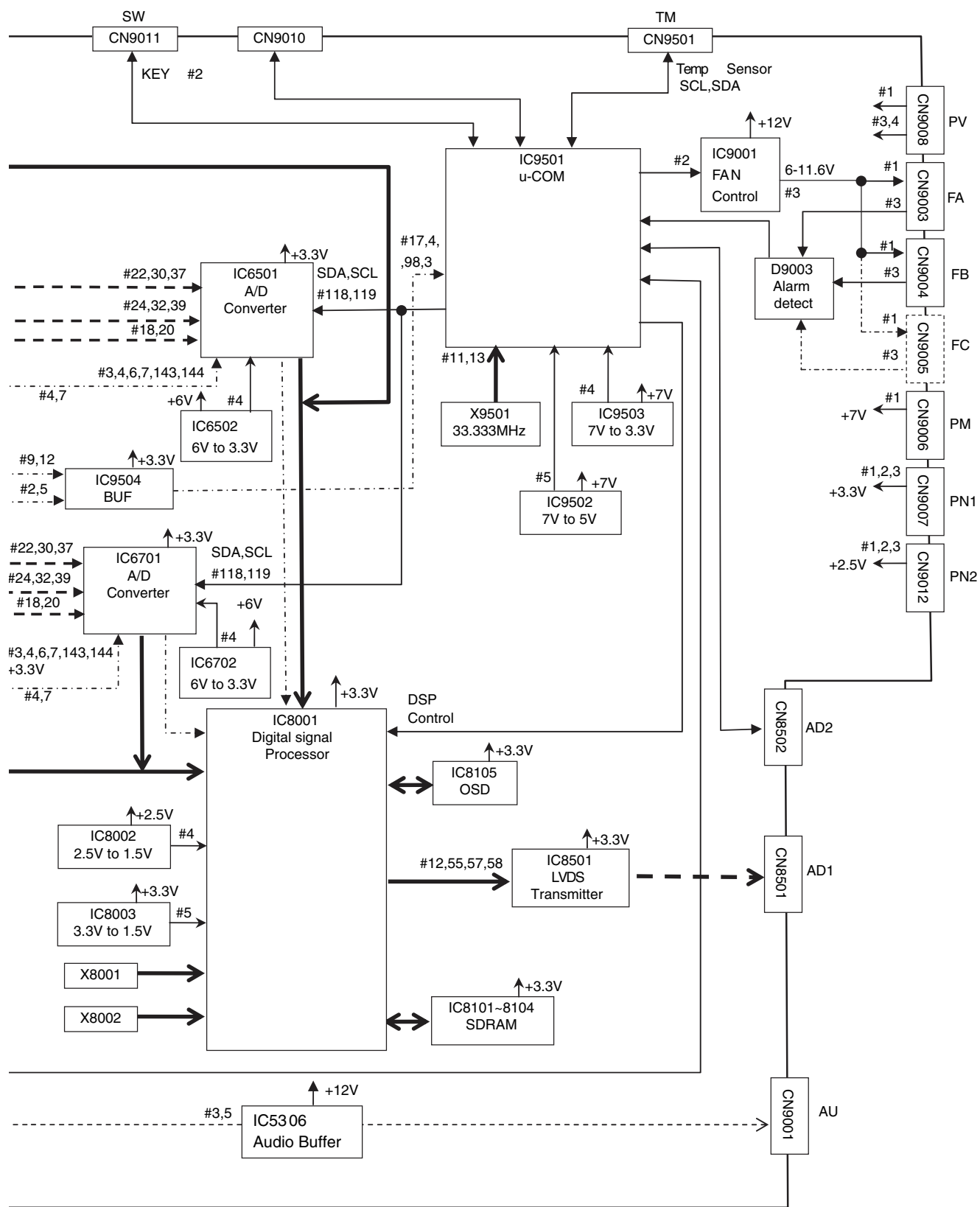
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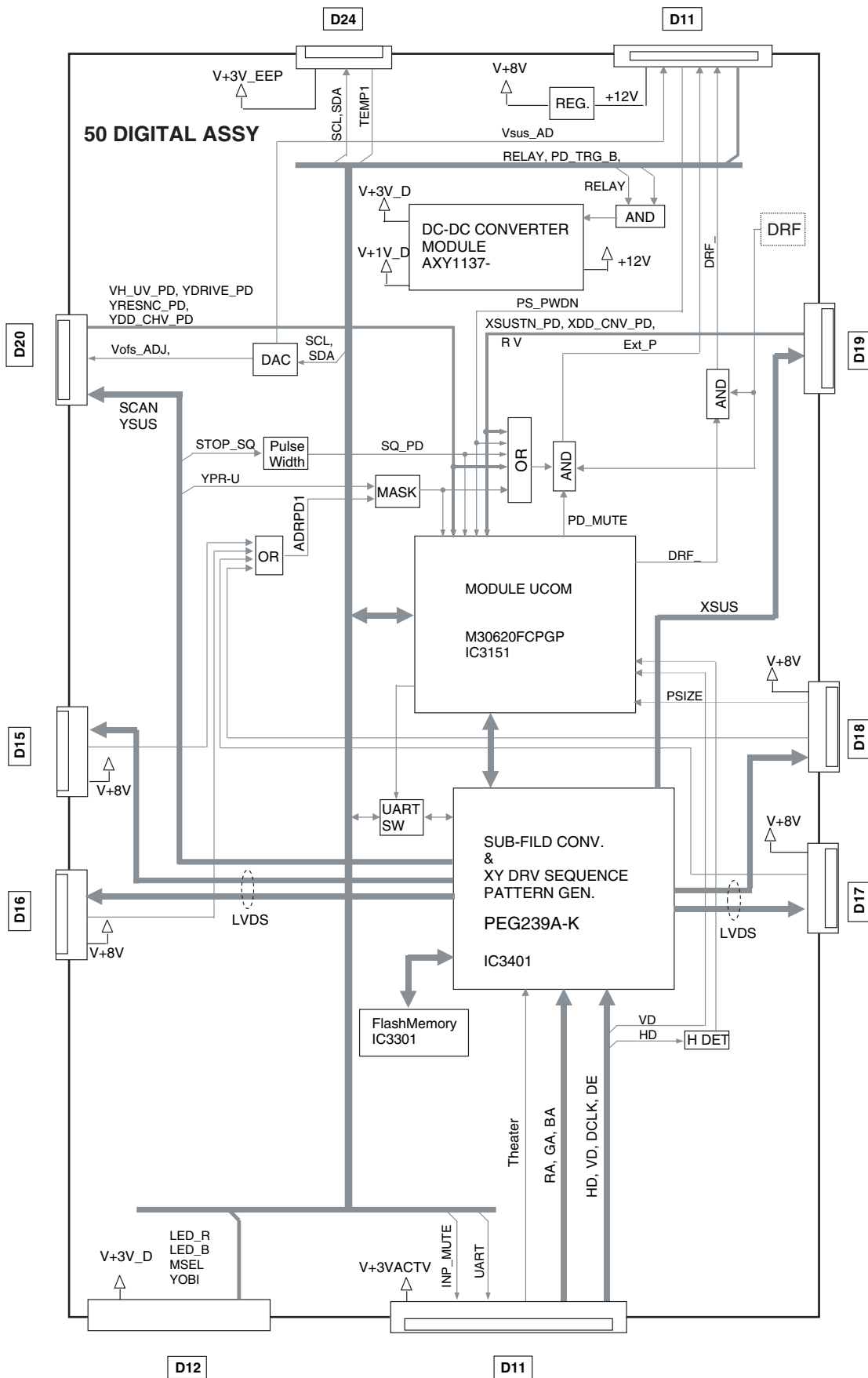




4



4.7 50 DIGITAL ASSY

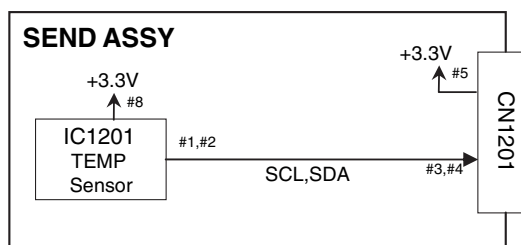
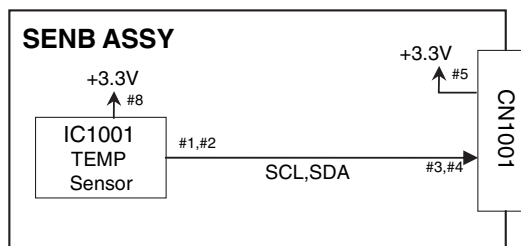
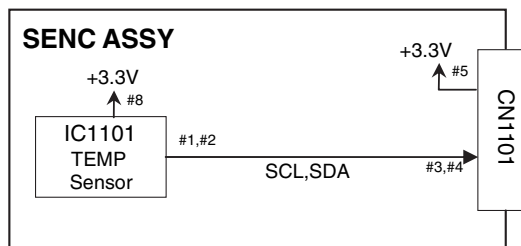
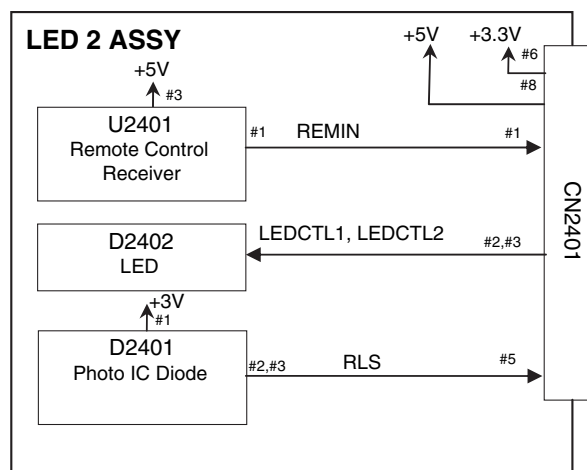
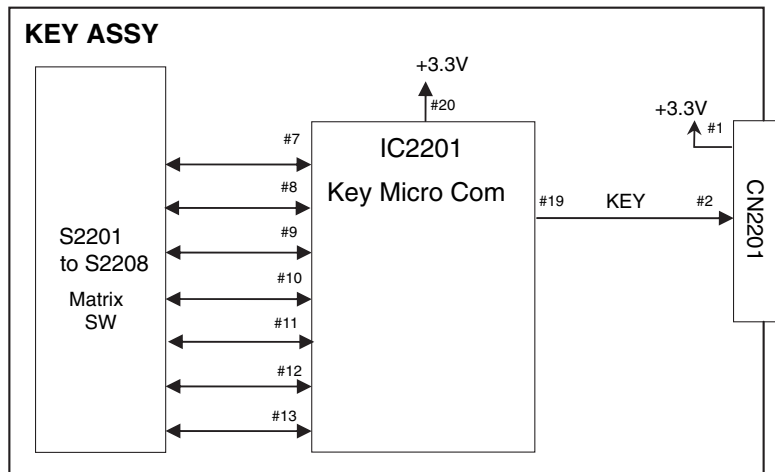


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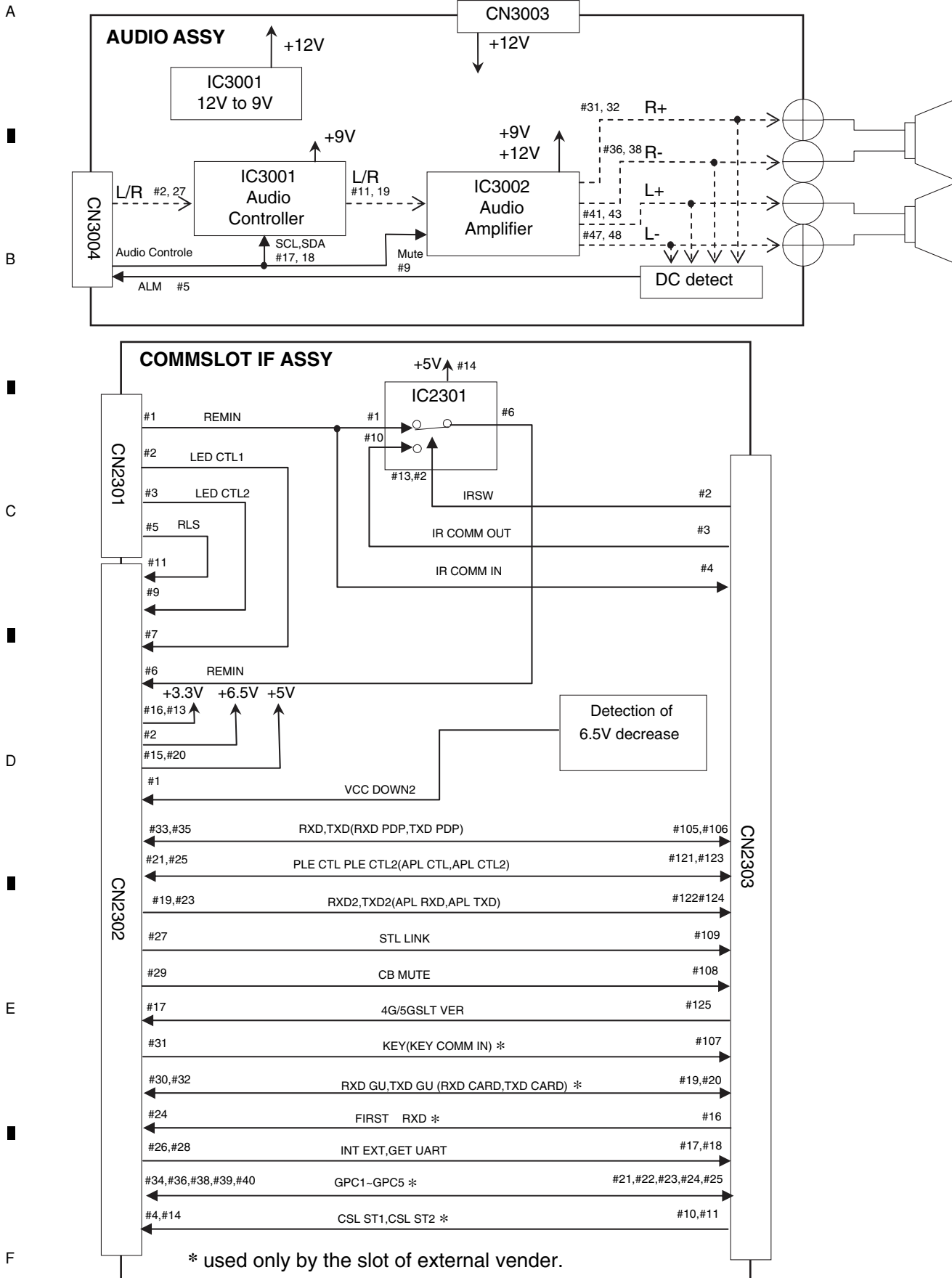


used only by the slot of external vender.

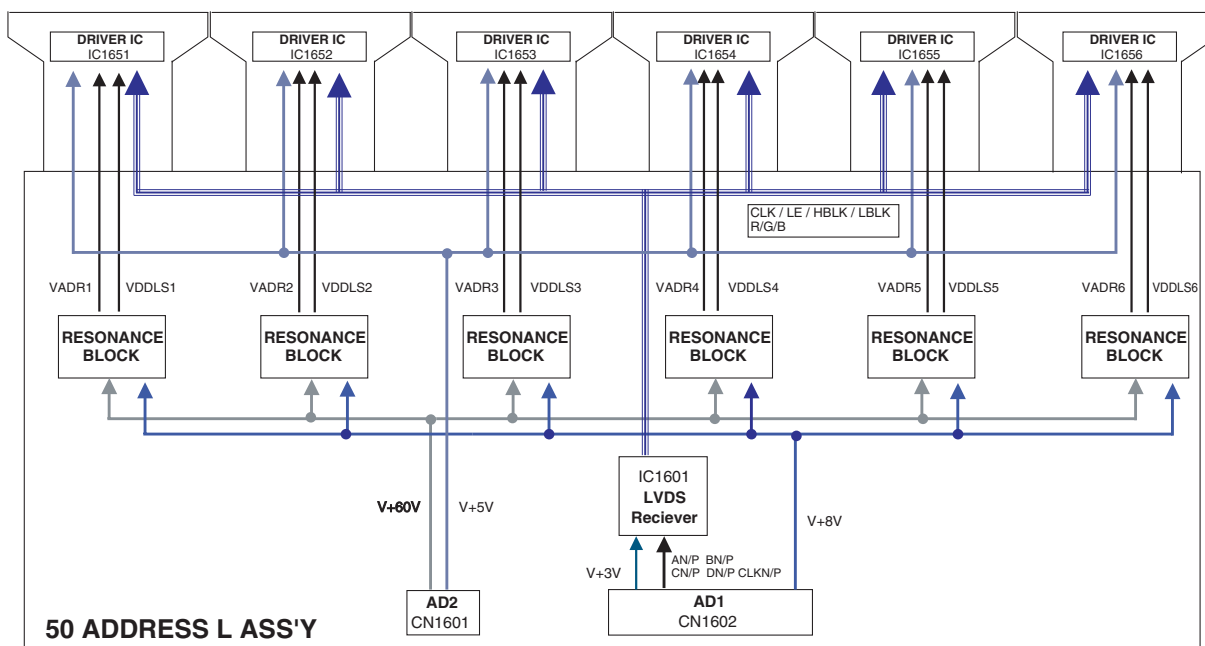
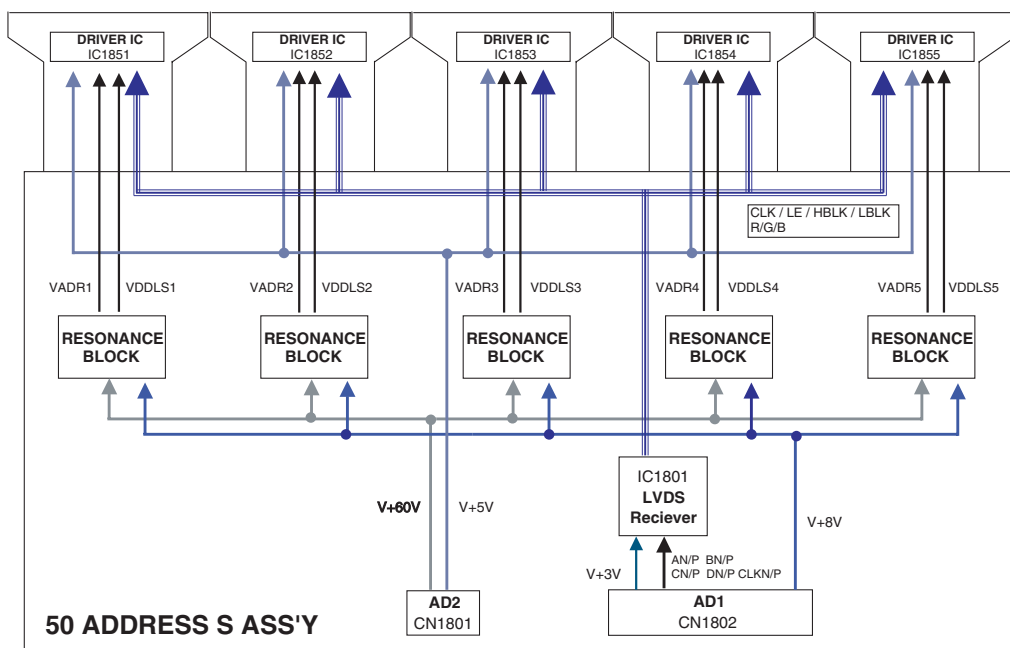
4.9 KEY, LED2, SENB, SENC and SEND ASSYS



4.10 AUDIO and COMMSLOT IF ASSYS



4.11 50 ADDRESS S and L ASSYS



4.12 50 SCAN A and B ASSYS

A

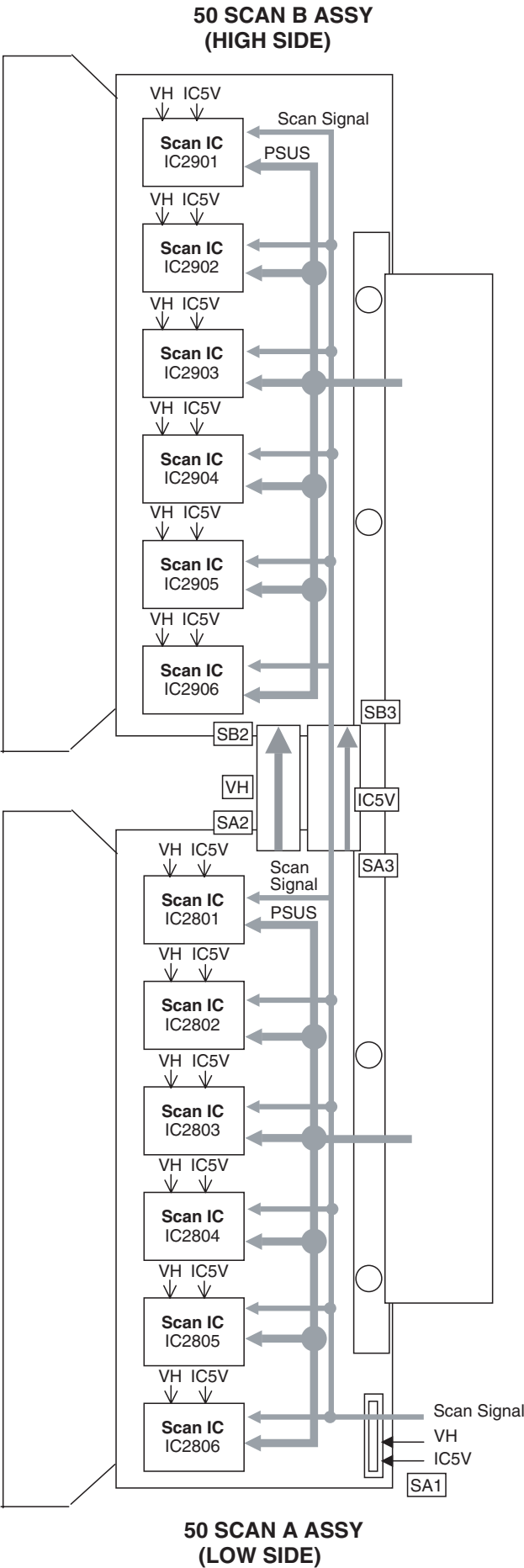
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C

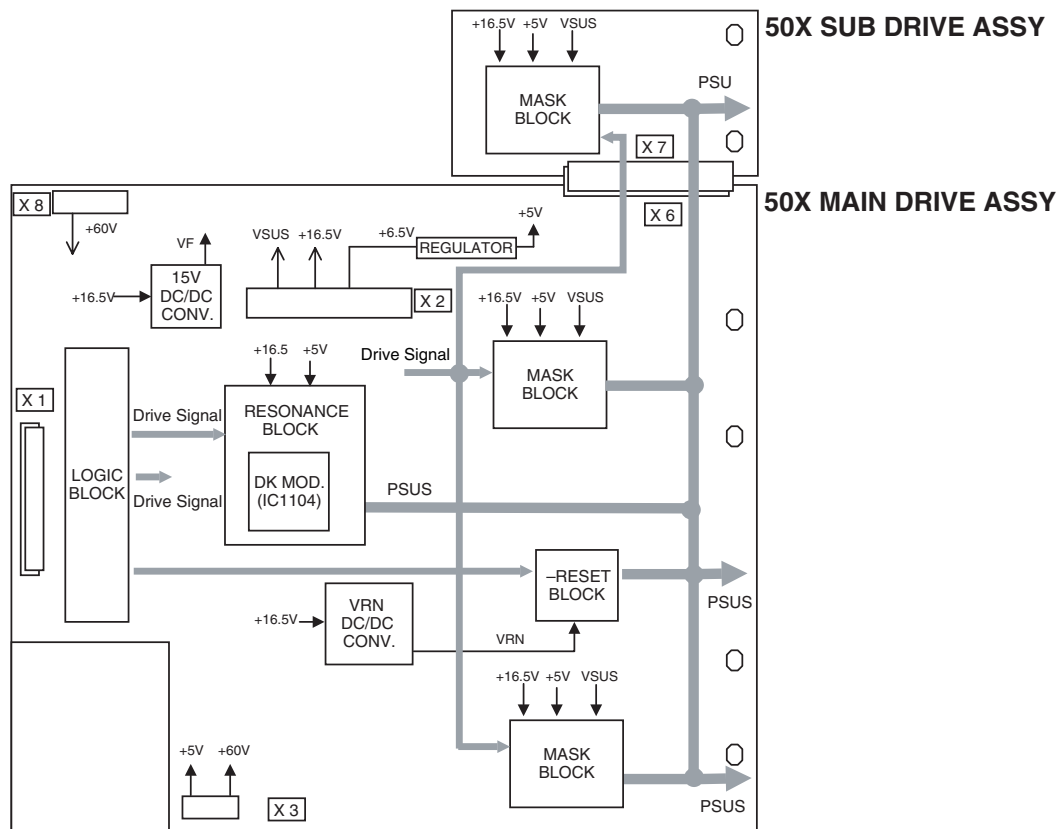
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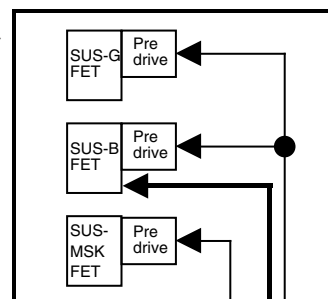
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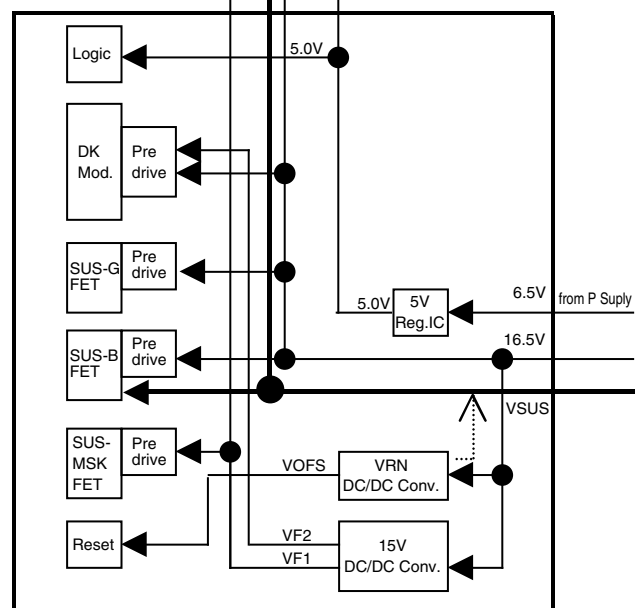
4.13 50 X MAIN DRIVE and 50 X SUB DRIVE ASSYS



50X SUB DRIVE ASSY



50X MAIN DRIVE ASSY

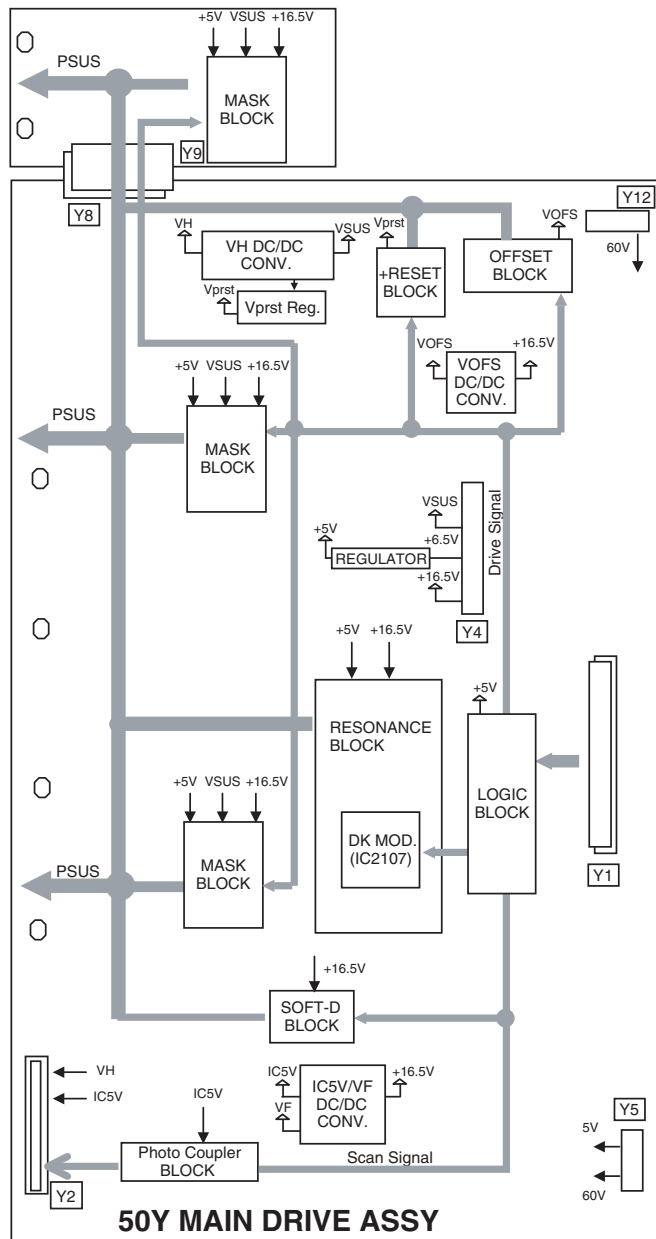


* VOFS DC/DC converter and VPRST regulator are controlled by electric volume.

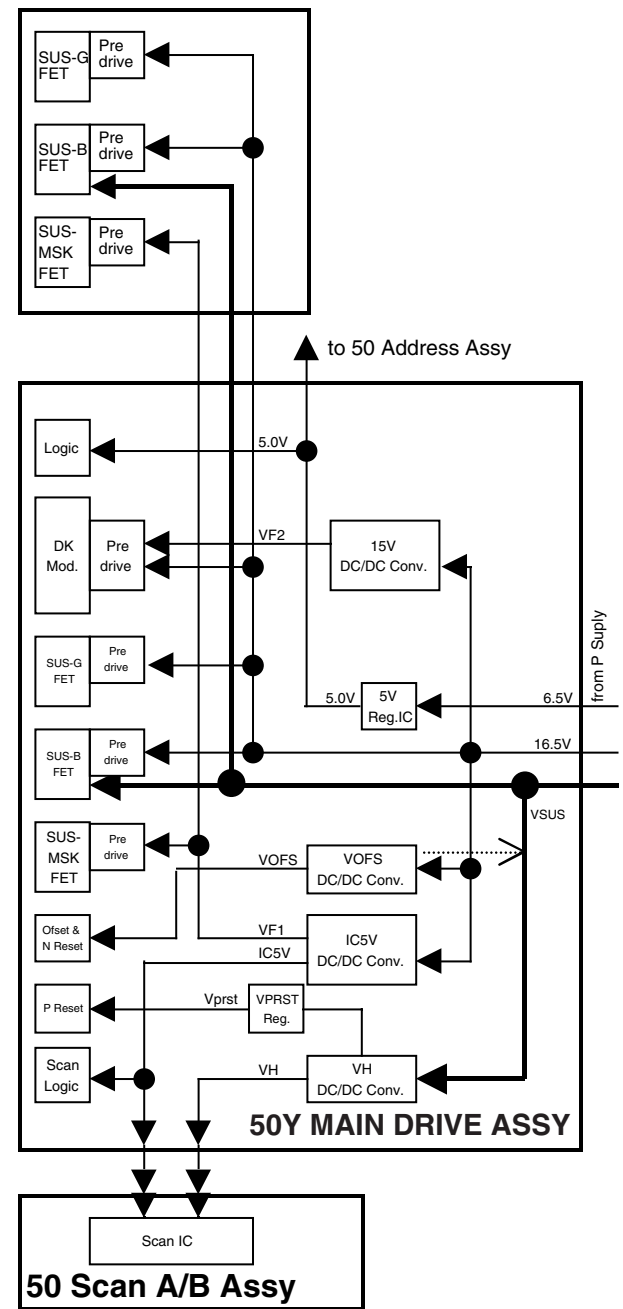
VOFS DC/DC converter and VRN DC/DC converter are generated from 16.5 v, but they do not operate when Vsus is under 100V.

4.14 50 Y MAIN DRIVE and 50 Y SUB DRIVE ASSYS

50Y SUB DRIVE ASSY



50Y SUB DRIVE ASSY



* VOFS DC/DC converter and VPRST regulator are controlled by electric volume.

VOFS DC/DC converter and VRN DC/DC converter are generated from 16.5 v, but they do not operate when Vsus is under 100V.

■ 5 ■ 6 ■ 7 ■ 8 ■



4.16 POWER BLOCK DIAGRAM

A

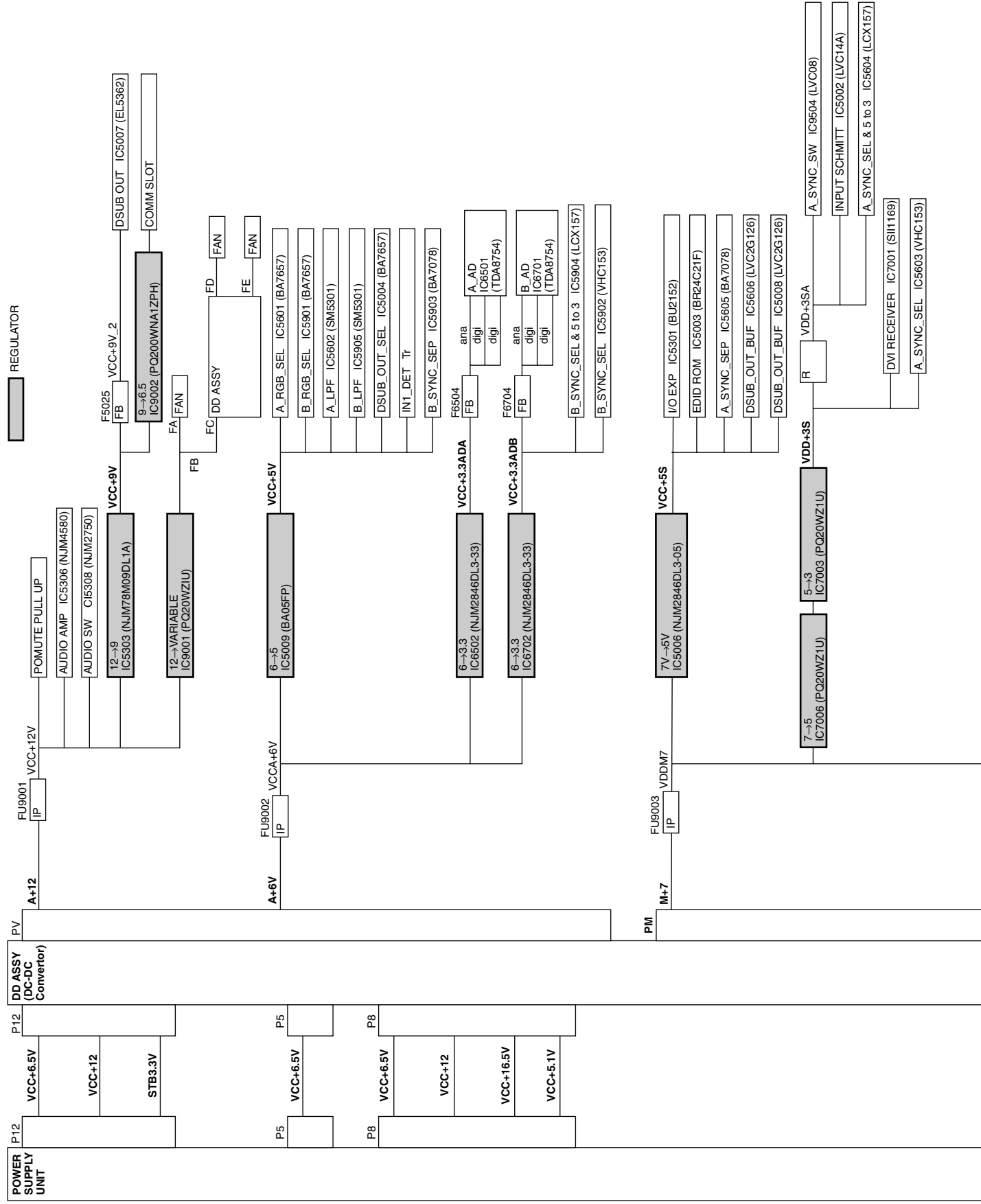
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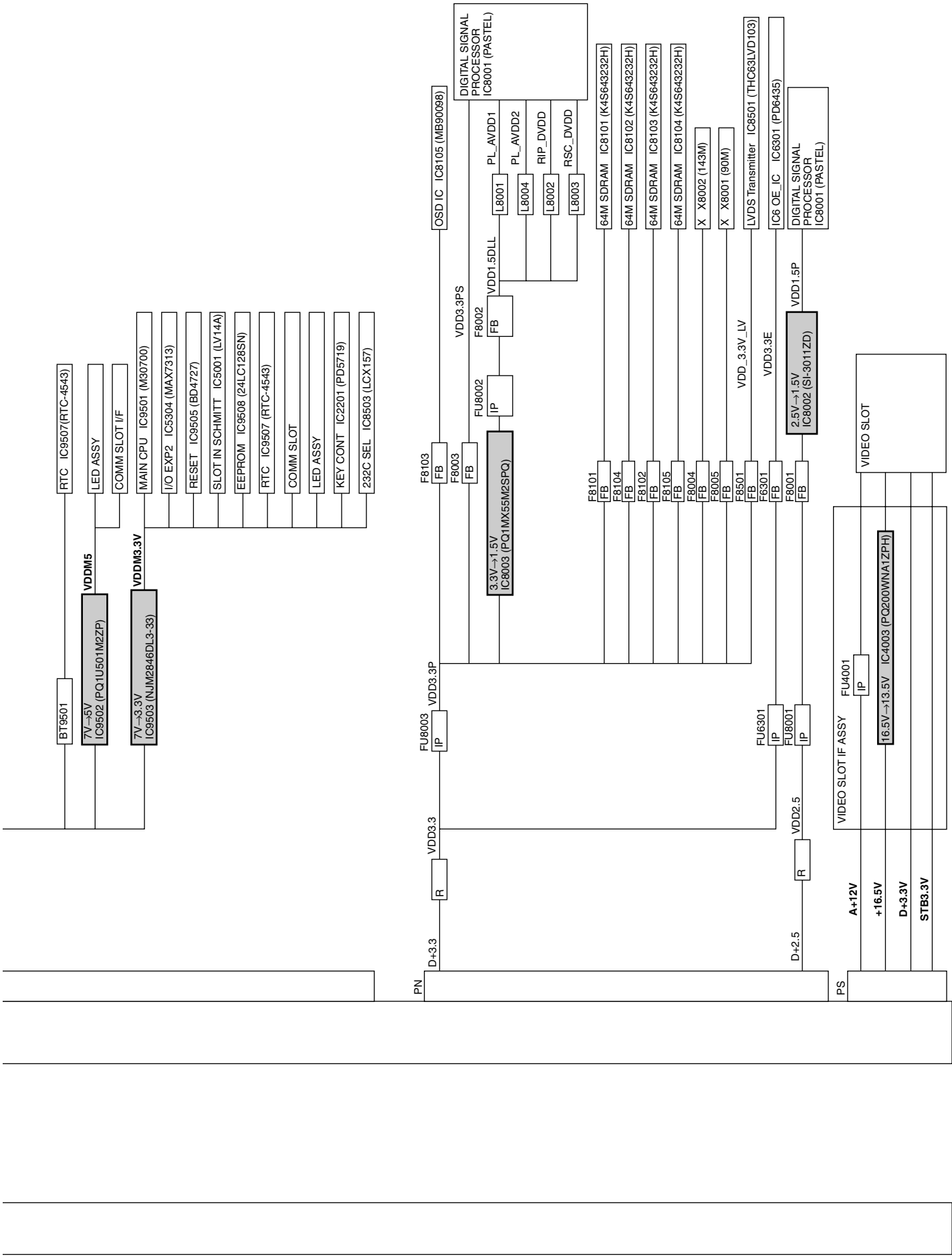
C

D

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F





1234

4.17 CONNECTOR PIN DESCRIPTION

(Caution)The operating voltages specified below are used in common irrespective of the presence of signals. In this case, however, part of the operating voltages (red characters) may change according to the signal conditions when the main power supply is turned on (POWER button ON).
Status of LED lighting: ★ for lighting in Green, ★★ for unlighting, and ★★★ for lighting in red.

A

Name	Pin No.	Pin name	FuNon-connection termination	AC power ON (Power load connected to the wall outlet) ★★	Basic operation(Numerical unit:Vdc, except for case when units are individually indicated)						AC Power OFF (Power cord pulled out of the wall outlet) ★★	Signal direction (DR : Data Relay)	
					MAIN POWER "ON" ★			Power management ★★★	Standby ★★★	Main power OFF ★★			
					No signal	With signal							
PN1 CN9007	1	D+3.3	3.3V power supply for digital circuits	MAIN	0	3.3	3.3	0	0	0	0	DD→MAIN	
	2	D+3.3	3.3V power supply for digital circuits	MAIN	0	3.3	3.3	0	0	0	0	DD→MAIN	
	3	D+3.3	3.3V power supply for digital circuits	MAIN	0	3.3	3.3	0	0	0	0	DD→MAIN	
	4	D.GND	GND	MAIN	0	0	0	0	0	0	0	-	
	5	D.GND	GND	MAIN	0	0	0	0	0	0	0	-	
	6	D.GND	GND	MAIN	0	0	0	0	0	0	0	-	
	PN2 CN9012	1	D+2.5	2.5V power supply for digital circuits	MAIN	0	2.5-3.3	2.5-3.3	0	0	0	0	DD→MAIN
		2	D+2.5	2.5V power supply for digital circuits	MAIN	0	2.5-3.3	2.5-3.3	0	0	0	0	DD→MAIN
3		D+2.5	2.5V power supply for digital circuits	MAIN	0	2.5-3.3	2.5-3.3	0	0	0	0	DD→MAIN	
4		NC	Non-connection terminal	MAIN	-	-	-	-	-	-	-	-	
	5	D.GND	GND	MAIN	0	0	0	0	0	0	0	-	
	6	D.GND	GND	MAIN	0	0	0	0	0	0	0	-	
	7	D.GND	GND	MAIN	0	0	0	0	0	0	0	-	
	PN CN307	1	D+3.3	3.3V power supply for digital circuits	DD	0	3.3	3.3	0	0	0	0	DD→MAIN
2		D+3.3	3.3V power supply for digital circuits	DD	0	3.3	3.3	0	0	0	0	DD→MAIN	
3		D+3.3	3.3V power supply for digital circuits	DD	0	3.3	3.3	0	0	0	0	DD→MAIN	
4		D.GND	GND	DD	0	0	0	0	0	0	0	-	
5		D.GND	GND	DD	0	0	0	0	0	0	0	-	
6		D.GND	GND	DD	0	0	0	0	0	0	0	-	
7		D+2.7	2.7V power supply for digital circuits	DD	0	2.5-3.3	2.5-3.3	0	0	0	0	DD→MAIN	
8		D+2.7	2.7V power supply for digital circuits	DD	0	2.5-3.3	2.5-3.3	0	0	0	0	DD→MAIN	
9		D+2.7	2.7V power supply for digital circuits	DD	0	2.5-3.3	2.5-3.3	0	0	0	0	DD→MAIN	
10		D.GND	GND	DD	0	0	0	0	0	0	0	-	
11		D.GND	GND	DD	0	0	0	0	0	0	0	-	
P8 CN302	12	D.GND	GND	DD	0	0	0	0	0	0	0	-	
	1	V+6.5	6.5V power supply for analog circuits	DD	0	6.5	6.5	0	0	0	0	PSU→DD	
	2	GND	GND	DD	0	0	0	0	0	0	0	-	
	3	V+12V	12V power supply for analog circuits	DD	0	12	12	0	0	0	0	PSU→DD	
	4	GND	GND	DD	0	0	0	0	0	0	0	-	
	5	V+16.5V	GND	DD	0	0	0	0	0	0	0	-	
	6	GND	GND	DD	0	0	0	0	0	0	0	-	
	7	V+5.1V	5.1V power supply for digital circuits	DD	0	5.1	5.1	0	0	0	0	PSU→DD	
	8	V+5.1V	5.1V power supply for digital circuits	DD	0	5.1	5.1	0	0	0	0	PSU→DD	
	9	V+5.1V	5.1V power supply for digital circuits	DD	0	5.1	5.1	0	0	0	0	PSU→DD	
	10	V+5.1V	5.1V power supply for digital circuits	DD	0	5.1	5.1	0	0	0	0	PSU→DD	
	11	GND	GND	DD	0	0	0	0	0	0	0	-	
	12	GND	GND	DD	0	0	0	0	0	0	0	-	
13	GND	GND	DD	0	0	0	0	0	0	0	-		
P8 CN304	1	V+6.5	6.5V power supply for analog circuits	PSU	0	6.5	6.5	0	0	0	0	PSU→DD	
	2	GND	GND	PSU	0	0	0	0	0	0	0	-	
	3	V+12V	12V power supply for analog circuits	PSU	0	12	12	0	0	0	0	PSU→DD	
	4	GND	GND	PSU	0	0	0	0	0	0	0	-	
	5	V+16.5V	GND	PSU	0	0	0	0	0	0	0	-	
	6	GND	GND	PSU	0	0	0	0	0	0	0	-	
	7	V+5.1V	5.1V power supply for digital circuits	PSU	0	5.1	5.1	0	0	0	0	PSU→DD	
	8	V+5.1V	5.1V power supply for digital circuits	PSU	0	5.1	5.1	0	0	0	0	PSU→DD	
	9	V+5.1V	5.1V power supply for digital circuits	PSU	0	5.1	5.1	0	0	0	0	PSU→DD	
	10	V+5.1V	5.1V power supply for digital circuits	PSU	0	5.1	5.1	0	0	0	0	PSU→DD	
	11	GND	GND	PSU	0	0	0	0	0	0	0	-	
	12	GND	GND	PSU	0	0	0	0	0	0	0	-	
	13	GND	GND	PSU	0	0	0	0	0	0	0	-	
P12 CN304	1	+6.5	6.5V power supply for analog circuits	DD	0	6.5	6.5	0	0	0	0	PSU→DD	
	2	GND_D	GND	DD	0	0	0	0	0	0	0	-	
	3	A+12V	12V power supply for analog circuits	DD	0	12	12	0	0	0	0	PSU→DD	
	4	GND_D	GND	DD	0	0	0	0	0	0	0	-	
	5	STB3.3V	3.3V power supply for standby	DD	3.3	3.3	3.3	3.3	3.3	3.3	3.3	PSU→DD	
	6	STB3.3V	3.3V power supply for standby	DD	3.3	3.3	3.3	3.3	3.3	3.3	3.3	PSU→DD	
	7	STB3.3V	3.3V power supply for standby	DD	3.3	3.3	3.3	3.3	3.3	3.3	3.3	PSU→DD	
	8	GND_STB	GND	DD	0	0	0	0	0	0	0	-	
	9	GND_STB	GND	DD	0	0	0	0	0	0	0	-	
	10	GND_STB	GND	DD	0	0	0	0	0	0	0	-	
	P12 CN305	1	+6.5	6.5V power supply for analog circuits	PSU	0	6.5	6.5	0	0	0	0	PSU→DD
		2	GND_D	GND	PSU	0	0	0	0	0	0	0	-
		3	A+12V	12V power supply for analog circuits	PSU	0	12	12	0	0	0	0	PSU→DD
4		GND_D	GND	PSU	0	0	0	0	0	0	0	-	
5		STB3.3V	3.3V power supply for standby	PSU	3.3	3.3	3.3	3.3	3.3	3.3	3.3	PSU→DD	
6		STB3.3V	3.3V power supply for standby	PSU	3.3	3.3	3.3	3.3	3.3	3.3	3.3	PSU→DD	
7		STB3.3V	3.3V power supply for standby	PSU	3.3	3.3	3.3	3.3	3.3	3.3	3.3	PSU→DD	
8		GND_STB	GND	PSU	0	0	0	0	0	0	0	-	
9		GND_STB	GND	PSU	0	0	0	0	0	0	0	-	
10		GND_STB	GND	PSU	0	0	0	0	0	0	0	-	
PM CN9006	1	M+7	7V power supply for microcomputer	MAIN	6.8	6.8	6.8	6.8	6.8	6.8	6.8	DD→MAIN	
	2	D.GND	GND	MAIN	0	0	0	0	0	0	0	-	
	3	POWER	Power control	MAIN	0	4.9	4.9	0	0	0	0	MAIN→DD	
	4	D.GND	GND	MAIN	0	0	0	0	0	0	0	-	
	5	POMUTE	Mute signal for AC power OFF	MAIN	4.8	4.8	4.8	4.8	4.8	4.8	4.8+-	DD→MAIN	
	6	SW7	Power start control	MAIN	0	6.8	6.8	6.8	6.8	0	0	DD→MAIN	
	7	N C	Non-connection terminal	MAIN	-	-	-	-	-	-	-	-	
	PM CN305	7	M+7	7V power supply for microcomputer	DD	0	7	7	7	7	0	0	DD→MAIN
		6	D.GND	GND	DD	0	0	0	0	0	0	0	-
		5	NC	Non-connection terminal	DD	-	-	-	-	-	-	-	MAIN→DD
4		NC	Non-connection terminal	DD	-	-	-	-	-	-	-	-	
	3	NC	Non-connection terminal	DD	-	-	-	-	-	-	-	DD→MAIN	
	2	NC	Non-connection terminal	DD	-	-	-	-	-	-	-	DD→MAIN	
	1	NC	Non-connection terminal	DD	-	-	-	-	-	-	-	-	
	PV CN9008	1	A+12	12V power supply for analog circuits	MAIN	0	12	12	0	0	0	0	DD→MAIN
2		A.GND	GND	MAIN	0	0	0	0	0	0	0	-	

E

F

Name	Pin No.	Pin name	FuNon-connection termination	Basic operation(Numerical unit:Vdc, except for case when units are individually indicated)							Signal direction (DR : Data Relay)
				AC power ON (Power cord connected to the wall outlet) ★★	MAIN POWER "ON" ★		Power management ★★★	Standby ★★★	Main power OFF ★★	AC Power OFF (Power cord pulled out of the wall outlet) ★★	
PV CN306	3	A+6	6V power supply for analog circuits	MAIN	0	6	6	0	0	0	DD→MAIN
	4	A+6	6V power supply for analog circuits	MAIN	0	6	6	0	0	0	DD→MAIN
	5	A.GND	GND	MAIN	0	0	0	0	0	0	-
	6	A.GND	GND	MAIN	0	0	0	0	0	0	-
	7	NC	Non-connection terminal	MAIN	-	-	-	-	-	-	-
	8	NC	Non-connection terminal	MAIN	-	-	-	-	-	-	-
	1	A+12	12V power supply for analog circuits	DD	0	12	12	0	0	0	DD→MAIN
	2	A.GND	GND	DD	0	0	0	0	0	0	-
	3	A+6	6V power supply for analog circuits	DD	0	6	6	0	0	0	DD→MAIN
	4	A+6	6V power supply for analog circuits	DD	0	6	6	0	0	0	DD→MAIN
	5	A.GND	GND	DD	0	0	0	0	0	0	-
	6	A.GND	GND	DD	0	0	0	0	0	0	-
	7	NC	Non-connection terminal	DD	-	-	-	-	-	-	-
	8	NC	Non-connection terminal	DD	-	-	-	-	-	-	-
AU CN9001 CN3004	1	AU_L	Audio signal L CH		0 0	Selected input signals are output		0	0	0	MAIN→AUDIO
	2	GND	GND		0	0	0	0	0	0	-
	3	AU_R	Audio signal R CH		0 0	Selected input signals are output		0	0	0	MAIN→AUDIO
	4	GND	GND		0	0	0	0	0	0	-
	5	S P A L M	Audio output alarm signal		0	3.3	3.3	3.3	3.3	0	AUDIO→MAIN
	6	GND	GND		0	0	0	0	0	0	-
	7	MUTE	Mute signal of audio output		0	0→4.5→9.0 4.5V (4 sec.) at power on.	0→4.5→9.0 4.5V (4 sec.) at power on.	0	0	0	MAIN→AUDIO
	8	SCL7	Clock line of the I2C bus		0	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	0	0	0	MAIN→AUDIO
	9	SDA7	Data line of the I2C bus		0	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	1	1	0	MAIN→AUDIO
TM CN9501	1	SCL5	Clock line of the I2C bus		0	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal use during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	0	0	0	MAIN→SENB
	2	GND	GND		0	0	0	0	0	0	-
	3	VDD+3.3V	3.3V power supply for analog signals		0	3.3	3.3	0	0	0	MAIN→SENB
	4	SDA5	Data line of the I2C bus		0	During data exchange: Clock signal (3.3Vac), datanot exchanged: 3.3Vdc	During data exchange: Clock signal (3.3Vac), datanot exchanged: 3.3Vdc	0	0	0	MAIN→SENB
T M 1 CN1001	1	SCL5	Clock line of the I2C bus		0	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	0	0	0	MAIN→SENB
	2	GND	GND		0	0	0	0	0	0	-
	3	VDD+3.3V	3.3V power supply for analog signals		0	3.3	3.3	0	0	0	MAIN→SENB
	4	SDA5	Data line of the I2C bus		0	During data exchange: Clock signal (3.3Vac), datanot exchanged: 3.3Vdc	During data exchange: Clock signal (3.3Vac), datanot exchanged: 3.3Vdc	0	0	0	MAIN→SENB
	5	SCL5	Clock line of the I2C bus		0	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	0	0	0	SENB→SEND
	6	GND	GND		0	0	0	0	0	0	-
	7	VDD+3.3V	3.3V power supply for analog signals		0	3.3	3.3	0	0	0	SENB→SEND
	8	SDA5	Data line of the I2C bus		0	During data exchange: Clock signal (3.3Vac), datanot exchanged: 3.3Vdc	During data exchange: Clock signal (3.3Vac), datanot exchanged: 3.3Vdc	0	0	0	SENB→SEND
T M 2 CN1201	1	SCL5	Clock line of the I2C bus		0	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	0	0	0	SENB→SEND
	2	GND	GND		0	0	0	0	0	0	-
	3	VDD+3.3V	3.3V power supply for analog signals		0	3.3	3.3	0	0	0	SENB→SEND
	4	SDA5	Data line of the I2C bus		0	During data exchange: Clock signal (3.3Vac), datanot exchanged: 3.3Vdc	During data exchange: Clock signal (3.3Vac), datanot exchanged: 3.3Vdc	0	0	0	SENB→SEND
	5	SCL5	Clock line of the I2C bus		0	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	0	0	0	SEND→SENC
	6	GND	GND		0	0	0	0	0	0	-

A

B

C

D

E

F

Name	Pin No.	Pin name	FuNon-connection terminalion		Basic operation(Numerical unit:Vdc, except for case whwn units are individually indicated)							Signal direction (DR : Data Relay)
					AC power ON (Power coad connected to the wal outlet) ★★	MAIN POWER "ON" ★		Power management ★★★	Standby ★★★	Main power OFF ★★	AC Power OFF (Power cord pulled out of the wall outlet) ★★	
						No signal	With signal					
T M 3 CN1101	7	VDD+3.3V	3.3V power supply for analog signals		0	3.3	3.3	0	0	0	0	SEND→SENC
	8	SDA5	Data line of the I2C bus		0	During data exchange: Clock signal (3.3Vac), datanot exchanged: 3.3Vdc	During data exchange: Clock signal (3.3Vac), datanot exchanged: 3.3Vdc	0	0	0	0	SEND→→SENC
	1	SCL5	Clock line of the I2C bus		0	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	0	0	0	0	SEND→SENC
	2	GND	GND		0		0	0	0	0	0	-
	3	VDD+3.3V	3.3V power supply for analog signals		0	3.3	3.3	0	0	0	0	SEND→SENC
FA CN9003	4	SDA5	Data line of the I2C bus		0	During data exchange: Clock signal (3.3Vac), datanot exchanged: 3.3Vdc	During data exchange: Clock signal (3.3Vac), datanot exchanged: 3.3Vdc	0	0	0	0	SEND→→SENC
	1	FAN-CTL	Voltage- controllable power supply		0	11.6Vdc during high-speed revolution (Fan mode H) ;8.8Vdc during medium speed revolution (Fan mode M) ;6.0Vdc during low-speed revolution (Fan mode L) ;0Vdc while the fan is stopped	11.6Vdc during high-speed revolution (Fan mode H) ;8.8Vdc during medium speed revolution (Fan mode M) ;6.0Vdc during low-speed revolution (Fan mode L) ;0Vdc while the fan is stopped	0	0	0	0	MAIN→FAN
	2	GND	GND		0		0	0	0	0	0	-
	3	ALARM	Fan lock detect signal output		0	0V during normal Fan operation; 3.3Vdc while the fan is stopped	0V during normal Fan operation; 3.3Vdc while the fan is stopped	0	0	0	0	FAN→MAIN
FB CN9004	1	FAN-CTL	Voltage- controllable power supply		0	11.6Vdc during high-speed revolution (Fan mode H) ;8.8Vdc during medium speed revolution (Fan mode M) ;6.0Vdc during low-speed revolution (Fan mode L) ;0Vdc while the fan is stopped	11.6Vdc during high-speed revolution (Fan mode H) ;8.8Vdc during medium speed revolution (Fan mode M) ;6.0Vdc during low-speed revolution (Fan mode L) ;0Vdc while the fan is stopped	0	0	0	0	MAIN → DD
	2	GND	GND		0		0	0	0	0	0	-
	3	ALARM	Fan lock detect signal output		0	0V during normal Fan operation; 3.3Vdc while the fan is stopped	0V during normal Fan operation; 3.3Vdc while the fan is stopped	0	0	0	0	DD → MAIN
FC CN311	1	+10V	Voltage- controllable power supply		0	11.6Vdc during high-speed revolution (Fan mode H) ;8.8Vdc during medium speed revolution (Fan mode M) ;6.0Vdc during low-speed revolution (Fan mode L) ;0Vdc while the fan is stopped	11.6Vdc during high-speed revolution (Fan mode H) ;8.8Vdc during medium speed revolution (Fan mode M) ;6.0Vdc during low-speed revolution (Fan mode L) ;0Vdc while the fan is stopped	0	0	0	0	MAIN → DD
	2	GND D	GND		0		0	0	0	0	0	-
	3	NC	Non-connection terminal		-	-	-	-	-	-	-	-
	4	ALM OUT	Fan lock detect signal output		0	0V during normal Fan operation; 3.3Vdc while the fan is stopped	0V during normal Fan operation; 3.3Vdc while the fan is stopped	0	0	0	0	DD → MAIN
FD CN312	1	+10V	Voltage- controllable power supply		0	11.6Vdc during high-speed revolution (Fan mode H) ;8.8Vdc during medium speed revolution (Fan mode M) ;6.0Vdc during low-speed revolution (Fan mode L) ;0Vdc while the fan is stopped	11.6Vdc during high-speed revolution (Fan mode H) ;8.8Vdc during medium speed revolution (Fan mode M) ;6.0Vdc during low-speed revolution (Fan mode L) ;0Vdc while the fan is stopped	0	0	0	0	DD→FAN
	2	NC	Non-connection terminal		-	-	-	-	-	-	-	-
	3	GND D	GND		0		0	0	0	0	0	-
	4	NC	Non-connection terminal		-	-	-	-	-	-	-	-
	5	ALM D	Fan lock detect signal output		0	0V during normal Fan operation; 3.3Vdc while the fan is stopped	0V during normal Fan operation; 3.3Vdc while the fan is stopped	0	0	0	0	FAN→DD

Name	Pin No.	Pin name	FuNon-connection termination		Basic operation(Numerical unit:Vdc, except for case whwn units are individually indicated)							Signal direction (DR : Data Relay)	
					AC power ON (Power coad connected to the wal outlet) ★★	MAIN POWER "ON"★		Power management ★★★	Standby ★★★	Main power OFF ★★	AC Power OFF (Power cord pulled out of the wall outlet ★★		
						No signal	With signal						
FE CN313	1	+10V	Voltage- controllable power supply		0	11.6Vdc during high-speed revolution (Fan mode H) ;8.8Vdc during medium speed revolution (Fan mode M) ;6.0Vdc during low-speed revolution (Fan mode L) ;0Vdc while the fan is stopped	11.6Vdc during high-speed revolution (Fan mode H) ;8.8Vdc during medium speed revolution (Fan mode M) ;6.0Vdc during low-speed revolution (Fan mode L) ;0Vdc while the fan is stopped	0	0	0	0	DD→FAN	
	2	GND	GND		0	0	0	0	0	0	0	-	
	3	ALM E	Fan lock detect signal output		0	0V during normal Fan operation; 6-11.6 Vdc while the fan is abnormally stopped	0V during normal Fan operation; 6-11.6 Vdc while the fan is abnormally stopped	0	0	0	0	FAN→DD	
AD 1 CN8501	1	GND	GND	MAIN	0	0	0	0	0	0	0	-	
	2	GND	GND	MAIN	0	0	0	0	0	0	0	-	
	3	STATU S	Non-connection termial	MAIN	-	-	-	-	-	-	-	-	
	4	RFU	GND	MAIN	0	0	0	0	0	0	0	-	
	5	STB MUTE	No use	MAIN	-	-	-	-	-	-	-	-	
	6	POWER	No use	MAIN	-	-	-	-	-	-	-	-	
	7	MSEL	model select terminal	MAIN	0	0	0	0	0	0	0	-	
	8	GND	Video system output clock+	MAIN	0	0	0	0	0	0	0	-	
	9	RF-	Non-connection termial	MAIN	-	-	-	-	-	-	-	-	
	10	RF+	Non-connection termial	MAIN	-	-	-	-	-	-	-	-	
	11	RG-	Non-connection termial	MAIN	-	-	-	-	-	-	-	-	
	12	RG+	Non-connection termial	MAIN	-	-	-	-	-	-	-	-	
	13	RH-	Non-connection termial	MAIN	-	-	-	-	-	-	-	-	
	14	RH+	Non-connection termial	MAIN	-	-	-	-	-	-	-	-	
	15	GND	GND	MAIN	0	0	0	0	0	0	0	-	
	16	RA-	Video system output A-	MAIN	0	Video mode LVDS serial differential A- output 0Vdc; Bias 1.4Vdc;	Video mode LVDS serial differential A- output 0.3Vac; Bias 1.25Vdc;	0	0	0	0	-	MAIN→LVDS
	17	RA+	Video system output A+	MAIN	0	Video mode LVDS serial differential A+ output 0Vdc; Bias 1.1Vdc;	Video mode LVDS serial differential A+ output 0.3Vac; Bias 1.25Vdc;	0	0	0	0	-	MAIN→LVDS
	18	RB-	Video system output B-	MAIN	0	Video mode LVDS serial differential B- output 0Vdc; Bias 1.4Vdc;	Video mode LVDS serial differential B- output 0.3Vac; Bias 1.25Vdc;	0	0	0	0	-	MAIN→LVDS
	19	RB+	Video system output B+	MAIN	0	Video mode LVDS serial differential B+ output 0Vdc; Bias 1.1Vdc;	Video mode LVDS serial differential B+ output 0.3Vac; Bias 1.25Vdc;	0	0	0	0	-	MAIN→LVDS
	20	RC-	Video system output C-	MAIN	0	Video mode LVDS serial differential C- output 0Vdc; Bias 1.4Vdc;	Video mode LVDS serial differential C- output 0.3Vac; Bias 1.25Vdc;	0	0	0	0	-	MAIN→LVDS
	21	RC+	Video system output C+	MAIN	0	Video mode LVDS serial differential C+ output 0Vdc; Bias 1.1Vdc;	Video mode LVDS serial differential C+ output 0.3Vac; Bias 1.25Vdc;	0	0	0	0	-	MAIN→LVDS
	22	GND	GND	MAIN	0	0	0	0	0	0	0	-	-
	23	RCLK-	Video system output clock-	MAIN	0	Video data clock LVDS serial differential clock- output 0.3Vac; Bias 1.25Vdc;	Video data clock LVDS serial differential clock- output 0.3Vac; Bias 1.25Vdc;	0	0	0	0	-	MAIN→LVDS
	24	RCLK+	Video system output clock+	MAIN	0	Video data clock LVDS serial differential clock+output 0.3Vac; Bias 1.25Vdc;	Video data clock LVDS serial differential clock+output 0.3Vac; Bias 1.25Vdc;	0	0	0	0	-	MAIN→LVDS
	25	RD-	Video system output D-	MAIN	0	Video mode LVDS serial differential D- output 0Vdc; Bias 1.4Vdc;	Video mode LVDS serial differential D- output 0.3Vac; Bias 1.25Vdc;	0	0	0	0	-	MAIN→LVDS
	26	RD+	Video system output D+	MAIN	0	Video mode LVDS serial differential D+ output 0Vdc; Bias 1.1Vdc;	Video mode LVDS serial differential D+ output 0.3Vac; Bias 1.25Vdc;	0	0	0	0	-	MAIN→LVDS
	27	RE-	Video system output E-	MAIN	0	Video mode LVDS serial differential E- output 0Vdc; Bias 1.4Vdc;	Video mode LVDS serial differential E- output 0.3Vac; Bias 1.25Vdc;	0	0	0	0	-	MAIN→LVDS
	28	RE+	Video system output E+	MAIN	0	Video mode LVDS serial differential E+ output 0Vdc; Bias 1.1Vdc;	Video mode LVDS serial differential E+ output 0.3Vac; Bias 1.25Vdc;	0	0	0	0	-	MAIN→LVDS
	29	GND	GND	MAIN	0	0	0	0	0	0	0	0	-
	30	GND	GND	MAIN	0	0	0	0	0	0	0	0	-
	31	GND	GND	MAIN	0	0	0	0	0	0	0	0	-
AD 1 CN101	1	GND	GND	LVDS	0	0	0	0	0	0	0	-	
	2	GND	GND	LVDS	0	0	0	0	0	0	0	-	
	3	STATU S	No use	LVDS	0	0	0	0	0	0	0	-	
	4	RFU	No use	LVDS	0	0	0	0	0	0	0	-	
	5	STB MT	No use	LVDS	0	0	0	0	0	0	0	-	
	6	POWER	No use	LVDS	0	3.3	3.3	3.3	3.3	0	0	-	
	7	MSEL	model select terminal	LVDS	0	0	0	0	0	0	0	-	
	8	GND	GND	LVDS	0	0	0	0	0	0	0	-	
	9	RH+	Non-connection termial	LVDS	-	-	-	-	-	-	-	-	
	10	RH-	Non-connection termial	LVDS	-	-	-	-	-	-	-	-	
	11	RG+	Non-connection termial	LVDS	-	-	-	-	-	-	-	-	
	12	RG-	Non-connection termial	LVDS	-	-	-	-	-	-	-	-	
	13	RF+	Non-connection termial	LVDS	-	-	-	-	-	-	-	-	
	14	RF-	Non-connection termial	LVDS	-	-	-	-	-	-	-	-	
	15	GND	GND	LVDS	0	0	0	0	0	0	0	-	
	16	RE+	Video system output E+	LVDS	0	Video mode LVDS serial differential E+ output 0Vdc; Bias 1.1Vdc;	Video mode LVDS serial differential E+ output 0.3Vac; Bias 1.25Vdc;	0	0	0	0	-	MAIN→LVDS

Name	Pin No.	Pin name	FuNon-connection terminalion	Basic operation(Numerical unit:Vdc, except for case whwn units are individually indicated)							Signal direction (DR : Data Relay)		
				AC power ON (Power coad connected to the wal outlet) ★★	MAIN POWER "ON"★		Power management ★★★	Standby ★★★	Main power OFF ★★	AC Power OFF (Power cord pulled out of the wall outlet) ★★			
					No signal	With signal							
AD 2 CN8502	17	RE-	Video system output E-	LVDS	0	Video mode LVDS serial differential E- output 0Vac; Bias 1.4Vdc	Video mode LVDS serial differential E- output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN→LVDS	
	18	RD+	Video system output D+	LVDS	0	Video mode LVDS serial differential D+ output 0Vac; Bias 1.1Vdc	Video mode LVDS serial differential D+ output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN→LVDS	
	19	RD-	Video system output D-	LVDS	0	Video mode LVDS serial differential D- output 0Vac; Bias 1.4Vdc	Video mode LVDS serial differential D- output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN→LVDS	
	20	RCLK+	Video system output clock+	LVDS	0	Video data clock LVDS serial differential clock+output 0.3Vac; Bias 1.25Vdc	Video data clock LVDS serial differential clock+output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN→LVDS	
	21	RCLK-	Video system output clock-	LVDS	0	Video data clock LVDS serial differential clock- output 0.3Vac; Bias 1.25Vdc	Video data clock LVDS serial differential clock- output 0.3Vac; Bias 1.25Vdc	0	0	0	-	MAIN→LVDS	
	22	GND	GND	LVDS	0	0	0	0	0	0	0	-	-
	23	RC+	Video system output C+	LVDS	0	Video data LVDS serial differential C+ output 0.3Vac; Bias 1.25Vdc	Video data LVDS serial differential C+ output 0.3Vac; Bias 1.25Vdc	0	0	0	0	-	MAIN→LVDS
	24	RC-	Video system output C-	LVDS	0	Video data LVDS serial differential C- output 0.3Vac; Bias 1.25Vdc	Video data LVDS serial differential C- output 0.3Vac; Bias 1.25Vdc	0	0	0	0	-	MAIN→LVDS
	25	RB+	Video system output B+	LVDS	0	Video data LVDS serial differential B+ output 0Vac; Bias 1.1Vdc	Video data LVDS serial differential B+ output 0.3Vac; Bias 1.25Vdc	0	0	0	0	-	MAIN→LVDS
	26	RB-	Video system output B-	LVDS	0	Video data LVDS serial differential B- output 0Vac; Bias 1.4Vdc	Video data LVDS serial differential B- output 0.3Vac; Bias 1.25Vdc	0	0	0	0	-	MAIN→LVDS
	27	RA+	Video system output A+	LVDS	0	Video data LVDS serial differential A+ output 0Vac; Bias 1.1Vdc	Video data LVDS serial differential A+ output 0.3Vac; Bias 1.25Vdc	0	0	0	0	-	MAIN→LVDS
	28	RA-	Video system output A-	LVDS	0	Video data LVDS serial differential A- output 0Vac; Bias 1.4Vdc	Video data LVDS serial differential A- output 0.3Vac; Bias 1.25Vdc	0	0	0	0	-	MAIN→LVDS
	29	GND	GND	LVDS	0	0	0	0	0	0	0	-	-
	30	GND	GND	LVDS	0	0	0	0	0	0	0	-	-
	31	GND	GND	LVDS	0	0	0	0	0	0	0	-	-
	1	GND	GND	MAIN	0	0	0	0	0	0	0	-	-
	2	GND	GND	MAIN	0	0	0	0	0	0	0	-	-
	3	P_ST_B	Connecting detection (PDP →MAIN)	MAIN	0	0	0	0	0	0	0	-	LVDS→MAIN
	4	MR_ST_B	Connecting detection (MAIN→PDP)	MAIN	0	0	0	0	0	0	0	-	MAIN→LVDS
	5	NC	Non-connection terminal	MAIN	-	-	-	-	-	-	-	-	-
	6	MR_RXD	UART data (PDP→MAIN)	MAIN	0	Clock signal (3.3Vac) when data are received; 3.3Vdc when no data are received.	Clock signal (3.3Vac) when data are received; 3.3Vdc when no data are received.	3.3	3.3	3.3	3.3	-	LVDS→MAIN
	7	V+3V_D	3.3V power supply for the test jig	MAIN	0	3.3	3.3	0	0	0	0	-	-
	8	AC_DET_B	AC power detection from power supply	MAIN	0	3.3	3.3	3.3	3.3	3.3	3.3	-	LVDS→MAIN
	9	NC	Non-connection terminal	MAIN	-	-	-	-	-	-	-	-	-
	10	REQ	UART send request from PDP module	MAIN	0	3.3Vdc when request signal is received; 0Vdc when no request signal is received.	3.3Vdc when request signal is received; 0Vdc when no request signal is received.	0	0	0	0	-	LVDS→MAIN
	11	NC	Non-connection terminal	MAIN	-	-	-	-	-	-	-	-	-
	12	MR_TXD	UART data (MAIN→PDP)	MAIN	0	Clock signal (3.3Vac) when data are received; 3.3Vdc when no data are received.	Clock signal (3.3Vac) when data are received; 3.3Vdc when no data are received.	3.3	3.3	3.3	3.3	-	MAIN→LVDS
	13	NC	Non-connection terminal	MAIN	-	-	-	-	-	-	-	-	-
14	STB_MUTE	Stand by power control signal	MAIN	0	0	0	4.7	4.7	0	0	-	MAIN→LVDS	
15	NC	Non-connection terminal	MAIN	-	-	-	-	-	-	-	-	-	
16	VIS	reserve	MAIN	0	0	0	0	0	0	0	-	MAIN→LVDS	
17	NC	Non-connection terminal	MAIN	-	-	-	-	-	-	-	-	-	
18	FIELD	Advanced cinema control signal	MAIN	0	0	0	0	0	0	0	-	MAIN→LVDS	
19	GND	GND	MAIN	0	0	0	0	0	0	0	-	-	
20	GND	GND	MAIN	0	0	0	0	0	0	0	-	-	
1	GND	GND	LVDS	0	0	0	0	0	0	0	-	-	
2	P_ST_B	No use	LVDS	0	0	0	0	0	0	0	-	-	
3	NC	Non-connection terminal	LVDS	-	-	-	-	-	-	-	-	-	
4	V+3V_D	3.3V power supply for the test jig	LVDS	0	3.3	3.3	0	0	0	0	-	-	
5	NC	Non-connection terminal	LVDS	-	-	-	-	-	-	-	-	-	
6	NC	Non-connection terminal	LVDS	-	-	-	-	-	-	-	-	-	
7	NC	Non-connection terminal	LVDS	-	-	-	-	-	-	-	-	-	

Name	Pin No.	Pin name	FuNon-connection termination	Basic operation(Numerical unit:Vdc, except for case when units are individually indicated)							Signal direction (DR : Data Relay)
				AC power ON (Power cord connected to the wall outlet) ★★	MAIN POWER "ON" ★		Power management ★★★	Standby ★★★	Main power OFF ★★	AC Power OFF (Power cord pulled out of the wall outlet) ★★	
	8	NC	Non-connection terminal	LVDS	-	-	-	-	-	-	-
	9	NC	Non-connection terminal	LVDS	-	-	-	-	-	-	-
	10	GND	GND	LVDS	0	0	0	0	0	0	-
	11	GND	GND	LVDS	0	0	0	0	0	0	-
	12	THEATER	Advanced cinema control signal	LVDS	0	0	0	0	0	0	MAIN→LVDS
	13	VIS	No use	LVDS	0	0	0	0	0	0	-
	14	STB_MUTE	No use	LVDS	0	0	0	4.7	4.7	0	-
	15	TXD	UART data (MAIN→PDP)	LVDS	0	Clock signal (3.3Vdc) when data are received; 3.3Vdc when no data are received.	Clock signal (3.3Vdc) when data are received; 3.3Vdc when no data are received.	3.3	3.3	3.3	MAIN→LVDS
	16	REQ_MD	UART send request from PDP module	LVDS	0	3.3Vdc when request signal is received; 0Vdc when no request signal is received.	3.3Vdc when request signal is received; 0Vdc when no request signal is received.	0	0	0	LVDS→MAIN
	17	AC_OFF	AC power detection from power supply	LVDS	0	3.3	3.3	3.3	3.3	3.3	LVDS→MAIN
	18	RXD	UART data (PDP→MAIN)	LVDS	0	Clock signal (3.3Vdc) when data are received; 3.3Vdc when no data are received.	Clock signal (3.3Vdc) when data are received; 3.3Vdc when no data are received.	3.3	3.3	3.3	LVDS→MAIN
	19	MR_ST_B	No use	LVDS	0	0	0	0	0	0	-
	20	GND	GND	LVDS	0	0	0	0	0	0	-
	1	GND	GND	LVDS	0	0	0	0	0	0	-
	2	P_REQ_MD	UART send request from PDP module	LVDS	0	3.3Vdc when request signal is received; 0Vdc when no request signal is received.	3.3Vdc when request signal is received; 0Vdc when no request signal is received.	0	0	0	PDP→LVDS
	3	P_RXD_MD	UART data (PDP→MAIN)	LVDS	0	Clock signal (3.3Vdc) when data are received; 3.3Vdc when no data are received.	Clock signal (3.3Vdc) when data are received; 3.3Vdc when no data are received.	3.3	3.3	3.3	PDP→LVDS
	4	P_TXD_MD	UART data (MAIN→PDP)	LVDS	0	Clock signal (3.3Vdc) when data are received; 3.3Vdc when no data are received.	Clock signal (3.3Vdc) when data are received; 3.3Vdc when no data are received.	3.3	3.3	3.3	LVDS→PDP
	5	P_AC_OFF	AC power detection from power supply	LVDS	0	3.3	3.3	3.3	3.3	3.3	PDP→LVDS
	6	NC	Non-connection terminal	LVDS	-	-	-	-	-	-	-
	7	GND	GND	LVDS	0	0	0	0	0	0	-
AD3 CN103	8	PARA_B0	Digital video output signal B[0]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	9	PARA_B1	Digital video output signal B[1]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	10	PARA_B2	Digital video output signal B[2]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	11	PARA_B3	Digital video output signal B[3]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	12	PARA_B4	Digital video output signal B[4]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	13	PARA_B5	Digital video output signal B[5]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	14	PARA_B6	Digital video output signal B[6]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	15	PARA_B7	Digital video output signal B[7]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	16	PARA_B8	Digital video output signal B[8]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	17	PARA_B9	Digital video output signal B[9]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	18	GND	GND	LVDS	0	0	0	0	0	0	-
	19	PARA_G0	Digital video output signal G[0]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	20	PARA_G1	Digital video output signal G[1]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	21	PARA_G2	Digital video output signal G[2]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	22	PARA_G3	Digital video output signal G[3]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	23	PARA_G4	Digital video output signal G[4]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	24	PARA_G5	Digital video output signal G[5]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	25	PARA_G6	Digital video output signal G[6]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	26	PARA_G7	Digital video output signal G[7]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	27	PARA_G8	Digital video output signal G[8]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	28	PARA_G9	Digital video output signal G[9]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	29	GND	GND	LVDS	0	0	0	0	0	0	-
	30	PARA_R0	Digital video output signal R[0]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	31	PARA_R1	Digital video output signal R[1]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	32	PARA_R2	Digital video output signal R[2]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	33	PARA_R3	Digital video output signal R[3]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	34	PARA_R4	Digital video output signal R[4]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	35	PARA_R5	Digital video output signal R[5]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	36	PARA_R6	Digital video output signal R[6]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	37	PARA_R7	Digital video output signal R[7]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	38	PARA_R8	Digital video output signal R[8]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	39	PARA_R9	Digital video output signal R[9]	LVDS	0	0	3.3Vac	0	0	0	LVDS→PDP
	40	GND	GND	LVDS	0	0	0	0	0	0	-
	41	GND	GND	LVDS	0	0	0	0	0	0	-
	42	P_CLK	Clock signal output	LVDS	0	3.3Vac	3.3Vac	0	0	0	LVDS→PDP
	43	GND	GND	LVDS	0	0	0	0	0	0	-
	44	PARA_DE	DE signal output	LVDS	0	3.3Vac	3.3Vac	0	0	0	LVDS→PDP
	45	PARA_HD	HD signal output	LVDS	0	3.3Vac	3.3Vac	0	0	0	LVDS→PDP
	46	PARA_VD	VD signal output	LVDS	0	3.3Vac	3.3Vac	0	0	0	LVDS→PDP
	47	P_THEATER	Advanced cinema control signal	LVDS	0	0	0	0	0	0	LVDS→PDP
	48	P_INP_MUTE	Mute control signal for LVDS Receiver outputs	LVDS	0	0	0	0	0	0	PDP→LVDS

Name	Pin No.	Pin name	FuNon-connection terminalion	Basic operation(Numerical unit:Vdc, except for case whwn units are individually indicated)							Signal direction (DR : Data Relay)		
				AC power ON (Power coad connected to the wal outlet) ★★	MAIN POWER "ON"★		Power management ★★★	Standby ★★★	Main power OFF ★★	AC Power OFF (Power cord pulled out of the wall outlet) ★★			
					No signal	With signal							
AD4 CN104	49	V+3V_UCOM2	3.3V power supply for module microcomputer	3.3	3.3	3.3	3.3	3.3	3.3	-	PDP→LVDS		
	50	GND	GND	0	0	0	0	0	0	0	-		
	1	GND	GND	0	0	0	0	0	0	0	-		
	2	DIGI_3V_IN	3.3V power supply for module microcomputer	3.3	3.3	3.3	3.3	3.3	3.3	-	PDP→LVDS		
	3	MASK1	No use	0	0	0	0	0	0	0	-		
	4	MASK0	No use	0	0	0	0	0	0	0	-		
	5	MAX_PLUS21	No use	0	0	0	0	0	0	0	-		
	6	MAX_PLUS20	No use	0	0	0	0	0	0	0	-		
	7	MAX_PLUS11	No use	0	0	0	0	0	0	0	-		
	8	MAX_PLUS10	No use	0	0	0	0	0	0	0	-		
	9	P_STATUS	No use	0	-	-	-	-	-	-	-		
	10	P_POWER	No use	0	0	0	0	0	0	0	-		
	11	DITHER	No use	0	0	0	0	0	0	0	-		
	12	P_MSEL	model select terminal	0	0	0	0	0	0	0	-		
	13	LED_B	No use	0	0	0	0	0	0	0	-		
	14	LED_R	No use	0	0	0	0	0	0	0	-		
	15	GND	GND	0	0	0	0	0	0	0	-		
	16	GND	GND	0	0	0	0	0	0	0	-		
	17	GND	GND	0	0	0	0	0	0	0	-		
	18	D+3_3V_2	3.3V power supply for LVDS Receiver	0	3.3	3.3	0	0	0	0	-	PDP→LVDS	
19	D+3_3V_2	3.3V power supply for LVDS Receiver	0	3.3	3.3	0	0	0	0	-	PDP→LVDS		
CN106	20	D+3_3V_2	3.3V power supply for LVDS Receiver	0	3.3	3.3	0	0	0	0	-	PDP→LVDS	
	1	GND	Signal GND for LVDS cable	0	0	0	0	0	0	0	0	-	
	2	GND	Signal GND for LVDS cable	0	0	0	0	0	0	0	0	-	
LD CN2602 CN2101	3	GND	Signal GND for LVDS cable	0	0	0	0	0	0	0	0	-	
	1	REMIN1	Infrared remote control data	0	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	0	0	LED→PWR		
	2	LEDCTL1	Standby red LED control	0	0	0	3.3	3.3	0	0	0	PWR→LED	
	3	LEDCTL2	POWER ON green LED control	0	3.3	3.3	0	0	0	0	0	PWR→LED	
	4	GND	GND	0	0	0	0	0	0	0	0	-	
SW CN9011 CN2201	5	M+5V	5V supply for microcomputer	0	5	5	5	5	0	0	0	PWR→LED	
	1	VDDM3		0	3.3	3.3	3.3	3.3	0	0	0	MAIN→KEY	
	2	KEY	Key input detection	0	0.7~2.8Vdc When key inputs are entered; 3.3Vdc when no key inputs are entered.	0.7~2.8Vdc When key inputs are entered; 3.3Vdc when no key inputs are entered.	0.7~2.8Vdc When key inputs are entered; 3.3Vdc when no key inputs are entered.	0.7~2.8Vdc When key inputs are entered; 3.3Vdc when no key inputs are entered.	0	0	KEY→MAIN		
PA CN3002	3	GND		0	0	0	0	0	0	0	0	-	
	1	S+12	12V power supply audio circuits	MAIN	0	12.5	12.5	0	0	0	0	0	POWER→AUDIO
	2	S+12	12V power supply audio circuits	MAIN	0	12.5	12.5	0	0	0	0	0	POWER→AUDIO
	3	S+12	12V power supply audio circuits	MAIN	0	12.5	12.5	0	0	0	0	0	POWER→AUDIO
	4	GND	GND	MAIN	0	0	0	0	0	0	0	0	-
	5	GND	GND	MAIN	0	0	0	0	0	0	0	0	-
PA	6	GND	GND	MAIN	0	0	0	0	0	0	0	0	-
	1	S+12	12V power supply audio circuits	PSU	0	12.5	12.5	0	0	0	0	0	POWER→AUDIO
	5	S+12	12V power supply audio circuits	PSU	0	12.5	12.5	0	0	0	0	0	POWER→AUDIO
	4	S+12	12V power supply audio circuits	PSU	0	12.5	12.5	0	0	0	0	0	POWER→AUDIO
	3	GND	GND	PSU	0	0	0	0	0	0	0	0	-
	2	GND	GND	PSU	0	0	0	0	0	0	0	0	-
CN9010 CN2302	1	GND	GND	PSU	0	0	0	0	0	0	0	0	-
	1	VCC_DOWN2	6.5V voltage surveillance		0	6.5V normal 3.3Vdc; 6.5V unusual 0Vdc	6.5V normal 3.3Vdc; 6.5V unusual 0Vdc	0	0	0	0	0	COMM SLOT I/F→MAIN
	2	V+6.5V	6.5V power supply for analog circuits		0	6.5	6.5	0	0	0	0	0	MAIN→COMM SLOT I/F
	3	NC	Non-connection terminal		-	-	-	-	-	-	-	-	-
	4	CSL_ST1	SLOT DETECT		0	3.3	3.3	3.3	3.3	0	0	0	COMM SLOT I/F→MAIN
	5	NC	Non-connection terminal		-	-	-	-	-	-	-	-	-
	6	REMIN	Infrared remote control data		0	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	0	0	0	COMM SLOT I/F→MAIN
	7	LEDCTL1	LED(RED)		0	0	0	5	5	0	0	0	MAIN→COMM SLOT I/F
	8	GND	GND		0	0	0	0	0	0	0	0	-
	9	LEDCTL2	LED(GREEN)		0	5	5	0	0	0	0	0	MAIN→COMM SLOT I/F
	10	CYOB1.2	Non-connection terminal		-	-	-	-	-	-	-	-	-
	11	RLS	Optical sensor		0	Illumination 100lx 1Vdc, Illumination 200lx 2Vdc	Illumination 100lx 1Vdc, Illumination 200lx 2Vdc	Illumination 100lx 1Vdc, Illumination 200lx 2Vdc	Illumination 100lx 1Vdc, Illumination 200lx 2Vdc	0	0	0	COMM SLOT I/F→MAIN
	12	CYOB1.1	Non-connection terminal		-	-	-	-	-	-	-	-	-
	13	VDDM3.3V	3.3V power supply for microcomputer		0	3.3	3.3	3.3	3.3	0	0	0	MAIN→COMM SLOT I/F
	14	CSL_ST2	SLOT TYPE DETECT		0	3.3	3.3	3.3	3.3	0	0	0	COMM SLOT I/F→MAIN
	15	VDDM5	5V power supply for microcomputer		0	5	5	5	5	0	0	0	MAIN→COMM SLOT I/F
	16	VDDM3.3V	3.3V power supply for microcomputer		0	3.3	3.3	3.3	3.3	0	0	0	MAIN→COMM SLOT I/F
	17	4G/5G	Generation information		0	0	0	0	0	0	0	0	COMM SLOT I/F→MAIN
	18	GND	GND		0	0	0	0	0	0	0	0	-
	19	TXD2	PLE LINK		0	clock signal used during data transmission (5Vac), 5Vdc when no data are transmitted.	clock signal used during data transmission (5Vac), 5Vdc when no data are transmitted.	clock signal used during data transmission (5Vac), 5Vdc when no data are transmitted.	clock signal used during data transmission (5Vac), 5Vdc when no data are transmitted.	0	0	0	MAIN→COMM SLOT I/F
	20	VDDM5	5V power supply for microcompute		0	5	5	5	5	0	0	0	MAIN→COMM SLOT I/F
	21	PLE_CTL2	PLE LINK process select		0	High output 3.3Vdc, Low output 0Vdc	High output 3.3Vdc, Low output 0Vdc	High output 3.3Vdc, Low output 0Vdc	0	0	0	0	MAIN→COMM SLOT I/F
	22	GND	GND		0	0	0	0	0	0	0	0	-

Name	Pin No.	Pin name	FuNon-connection termination		Basic operation(Numerical unit:Vdc; except for case when units are individually indicated)								Signal direction (DR : Data Relay)
					AC power ON (Power cord connected to the wal outlet) ★★	MAIN POWER "ON"★		Power management ★★★	Standby ★★★	Main power OFF ★★	AC Power OFF (Power cord pulled out of the wall outlet) ★★		
						No signal	With signal						
	23	RXD2	PLE LINK		0	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	0	0	0	COMM SLOT I/F→MAIN
	24	FIRST_RXD	RXD signal (to V-CARD-fs micro_COM only)		0	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	0	0	0	COMM SLOT I/F→MAIN
	25	PLE_CTL	PLE LINK process select		0	High output 3.3Vdc, Low output 0Vdc	High output 3.3Vdc, Low output 0Vdc	High output 3.3Vdc, Low output 0Vdc	0	0	0	0	MAIN→COMM SLOT I/F
	26	GET_UART	U-ART process select		0	3.3Vdc : 232C connector↔ PDP, 0V : 232Cconnector↔ VIDEO CARD, PDP↔ VIDEO CARD	3.3Vdc : 232C connector↔ PDP, 0V : 232Cconnector↔ VIDEO CARD, PDP↔ VIDEO CARD	3.3Vdc : 232C connector↔ PDP, 0V : 232Cconnector↔ VIDEO CARD, PDP↔ VIDEO CARD	3.3Vdc : 232C connector↔ PDP, 0V : 232Cconnector↔ VIDEO CARD, PDP↔ VIDEO CARD	0	0	0	MAIN→COMM SLOT I/F
	27	STL_LINK	The signal for still picture detection linkage operation		0	STL_LINK OFF signal(3.3Vdc), STL_LINK ON signal(0Vdc)	STL_LINK OFF signal(3.3Vdc), STL_LINK ON signal(0Vdc)	STL_LINK OFF signal(3.3Vdc), STL_LINK ON signal(0Vdc)	STL_LINK OFF signal(3.3Vdc), STL_LINK ON signal(0Vdc)	0	0	0	MAIN→COMM SLOT I/F
	28	INT_EXT	U-ART in/out Select		0	0V : 232C connector↔ VIDEO CARD, 3.3Vdc : PDP↔ VIDEO CARD	0V : 232C connector↔ VIDEO CARD, 3.3Vdc : PDP↔ VIDEO CARD	0V : 232C connector↔ VIDEO CARD, 3.3Vdc : PDP↔ VIDEO CARD	0V : 232C connector↔ VIDEO CARD, 3.3Vdc : PDP↔ VIDEO CARD	0	0	0	MAIN→COMM SLOT I/F
	29	CB_MUTE	COMBINATION MUTE signal		0	MUTE OFF signal(3.3Vdc), MUTE ON signal(0Vdc)	MUTE OFF signal(3.3Vdc), MUTE ON signal(0Vdc)	MUTE OFF signal(3.3Vdc), MUTE ON signal(0Vdc)	MUTE OFF signal(3.3Vdc), MUTE ON signal(0Vdc)	0	0	0	MAIN→COMM SLOT I/F
	30	RXD_GU	RXD signal(by GET_UART)		0	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	0	0	0	COMM SLOT I/F→MAIN
	31	KEY	KEY SCAN Signal		0	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	0	0	0	MAIN→COMM SLOT I/F
	32	TXD_GU	TXD Signal(by GET_UART)		0	Clock signal used duaring data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used duaring data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used duaring data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used duaring data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	0	0	0	MAIN→COMM SLOT I/F
	33	RXD	RXD Signal (to PD's micro_COM)		0	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	0	0	0	COMM SLOT I/F→MAIN
	34	GPC5	COMM CARD-VIDEO communication line		0	0	0	0	0	0	0	0	MAIN→COMM SLOT I/F
	35	TXD	TXD Signal (from PDP- fs micro_COM)		0	Clock signal used duaring data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used duaring data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used duaring data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used duaring data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	0	0	0	MAIN→COMM SLOT I/F
	36	GPC4	COMM CARD-VIDEO CARD communication line	Exclusive	0	0	0	0	0	0	0	0	MAIN→COMM SLOT I/F
	37	GND	GND		0	0	0	0	0	0	0	0	-
	38	GPC3	COMM CARD-VIDEO CARD communication line	Exclusive	0	0	0	0	0	0	0	0	MAIN→COMM SLOT I/F
	39	GPC1	COMM CARD-VIDEO CARD communication line	Exclusive	0	0	0	0	0	0	0	0	MAIN→COMM SLOT I/F
	40	GPC2	COMM CARD-VIDEO CARD communication line	Exclusive	0	0	0	0	0	0	0	0	MAIN→COMM SLOT I/F
CN2303 CN2004	1	NC	Non-connection terminal		-	-	-	-	-	-	-	-	-
	2	IRSW	IR signal process select		0	5	5	5	5	0	0	0	COMM CARD→COMM SLOT I/F
	3	IR_COMM_OUT	Infrared remote control data output(to PDP' s micro_COM)		0	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	Clock signal (5Vac) when data are received; 5Vdc when no data are received.	0	0	0	COMM CARD→COMM SLOT I/F
	4	IR_COMM_IN	Infrared remote control data input(from IR)		0	clock signal used duaring data transmission (5Vac), 5Vdc when no data are transmitted.	clock signal used duaring data transmission (5Vac), 5Vdc when no data are transmitted.	clock signal used duaring data transmission (5Vac), 5Vdc when no data are transmitted.	clock signal used duaring data transmission (5Vac), 5Vdc when no data are transmitted.	0	0	0	COMM SLOT I/F→COMM CARD
	5	GND	GND		0	0	0	0	0	0	0	0	-
	6	GND	GND		0	0	0	0	0	0	0	0	-
	7	GND	GND		0	0	0	0	0	0	0	0	-
	8	CYOB13	Non-connection terminal		-	-	-	-	-	-	-	-	-
	9	CYOB12	Non-connection terminal		-	-	-	-	-	-	-	-	-
	10	CSL_ST2	SLOT TYPE DETECT		0	3.3	3.3	3.3	3.3	0	0	0	COMM CARD→COMM SLOT I/F
	11	CSL_ST1	SLOT TYPE DETECT		0	3.3	3.3	3.3	3.3	0	0	0	COMM CARD→COMM SLOT I/F
	14	GND	GND		0	0	0	0	0	0	0	0	-
	15	GND	GND		0	0	0	0	0	0	0	0	-

Name	Pin No.	Pin name	FuNon-connection terminalion		Basic operation(Numerical unit:Vdc, except for case whwn units are individually indicated)						Signal direction (DR : Data Relay)	
					AC power ON (Power cord connected to the wal outlet) ★★	MAIN POWER 'ON' ★		Power management ★★★	Standby ★★★	Main power OFF ★★		AC Power OFF (Power cord pulled out of the wall outlet ★★
						No signal	With signal					
CN2303 CN2004	16	FIRST_RXD	RXD signal (to V-CARD-fs micro_COM only)		0 clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	0	0	COMM CARD→COMM SLOT I/F	
	17	GET_UART	U-ART PROCESS SELECT		0 3.3Vdc : 232C1; PDP, 0V : 232C1;PDP; VIDEO CARD, PDP; VIDEO CARD	3.3Vdc : 232C1; PDP, 0V : 232C1;PDP; VIDEO CARD, PDP; VIDEO CARD	3.3Vdc : 232C1; PDP, 0V : 232C1;PDP; VIDEO CARD, PDP; VIDEO CARD	3.3Vdc : 232C1; PDP, 0V : 232C1;PDP; VIDEO CARD, PDP; VIDEO CARD	0	0	COMM SLOT I/F→COMM CARD	
	18	INT_EXT	U-ART in/out Select		0 0V : 232C connector; VIDEO CARD, 3.3Vdc : PDP; VIDEO CARD	0V : 232C connector; VIDEO CARD, 3.3Vdc : PDP; VIDEO CARD	0V : 232C connector; VIDEO CARD, 3.3Vdc : PDP; VIDEO CARD	0V : 232C connector; VIDEO CARD, 3.3Vdc : PDP; VIDEO CARD	0	0	COMM SLOT I/F→COMM CARD	
	19	RXD_CARD	RXD signal(by GET_UART)		0 clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	0	0	COMM CARD→COMM SLOT I/F	
	20	TXD_CARD	TXD signal(by GET_UART)		0 Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	0	0	COMM SLOT I/F→COMM CARD	
	21	GPC5	COMM CARD-VIDEO CARD communication line	Exclusive	0	0	0	0	0	0	0	COMM SLOT I/F→COMM CARD
	22	GPC4	COMM CARD-VIDEO CARD communication line	Exclusive	0	0	0	0	0	0	0	COMM SLOT I/F→COMM CARD
	23	GPC3	COMM CARD-VIDEO CARD communication line	Exclusive	0	0	0	0	0	0	0	COMM SLOT I/F→COMM CARD
	24	GPC2	COMM CARD-VIDEO CARD communication line	Exclusive	0	0	0	0	0	0	0	COMM SLOT I/F→COMM CARD
	25	GPC1	COMM CARD-VIDEO CARD communication line	Exclusive	0	0	0	0	0	0	0	COMM SLOT I/F→COMM CARD
	101	NC	Non-connection terminal		-	-	-	-	-	-	-	-
	102	GND	GND		0	0	0	0	0	0	0	-
	103	GND	GND		0	0	0	0	0	0	0	-
	104	GND	GND		0	0	0	0	0	0	0	-
	105	TXD_PDP	TXD signal(from PDP-fs micro_COM)		0 Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	0	0	COMM SLOT I/F→COMM CARD	
	106	RXD_PDP	RXD signal(to PDP's micro_COM)		0 clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	0	0	COMM CARD→COMM SLOT I/F	
	107	KEY_COMM_IN	KEY SCAN signal		0 Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	0	0	COMM SLOT I/F→COMM CARD	
	108	CB_MUTE	COMBINATION MUTE signal		0 MUTE OFF signal(3.3Vdc), MUTE ON signal(0Vdc)	MUTE OFF signal(3.3Vdc), MUTE ON signal(0Vdc)	MUTE OFF signal(3.3Vdc), MUTE ON signal(0Vdc)	MUTE OFF signal(3.3Vdc), MUTE ON signal(0Vdc)	0	0	COMM SLOT I/F→COMM CARD	
	109	STL_LINK	The signal for still picture detection linkage operation		0 STL_LINK OFF signal(3.3Vdc), STL_LINK ON signal(0Vdc)	STL_LINK OFF signal(3.3Vdc), STL_LINK ON signal(0Vdc)	STL_LINK OFF signal(3.3Vdc), STL_LINK ON signal(0Vdc)	STL_LINK OFF signal(3.3Vdc), STL_LINK ON signal(0Vdc)	0	0	COMM SLOT I/F→COMM CARD	
	110	GND	GND		0	0	0	0	0	0	0	-
111	GND	GND		0	0	0	0	0	0	0	-	
114	V+6.5V	6.5V power supply for analog circuits		0	6.5V	6.5V	0	0	0	0	COMM SLOT I/F→COMM CARD	
115	V+6.5V	6.5V power supply for analog circuits		0	6.5V	6.5V	0	0	0	0	COMM SLOT I/F→COMM CARD	
116	GND	GND		0	0	0	0	0	0	0	-	
117	GND	GND		0	0	0	0	0	0	0	-	
118	VDDM3.3V	3.3V power supply for microcomputer		0	3.3V	3.3V	3.3V	3.3V	0	0	COMM SLOT I/F→COMM CARD	
119	VDDM3.3V	3.3V power supply for microcomputer		0	3.3V	3.3V	3.3V	3.3V	0	0	COMM SLOT I/F→COMM CARD	
120	VDDM5V	5V power supply for microcomputer		0	5V	5V	5V	5V	0	0	COMM SLOT I/F→COMM CARD	
121	APL_CTL1	PLE LINK process select		0 High output 3.3Vdc, Low output 0Vdc	High output 3.3Vdc, Low output 0Vdc	High output 3.3Vdc, Low output 0Vdc	0	0	0	0	COMM SLOT I/F→COMM CARD	
122	APL_RXD	PLE LINK		0 Clock signal (5Vac when data are received; 5Vdc when no data are received.	Clock signal (5Vac when data are received; 5Vdc when no data are received.	Clock signal (5Vac when data are received; 5Vdc when no data are received.	Clock signal (5Vac when data are received; 5Vdc when no data are received.	0	0	COMM CARD→COMM SLOT I/F		
123	APL_CTL2	PLE LINK process select		0 High output 3.3Vdc, Low output 0Vdc	High output 3.3Vdc, Low output 0Vdc	High output 3.3Vdc, Low output 0Vdc	0	0	0	0	COMM SLOT I/F→COMM CARD	

Name	Pin No.	Pin name	FuNon-connection termination	Basic operation(Numerical unit:Vdc, except for case when units are individually indicated)							Signal direction (DR : Data Relay)
				AC power ON (Power cord connected to the wall outlet) ★★	MAIN POWER "ON" ★		Power management ★★★	Standby ★★★	Main power OFF ★★	AC Power OFF (Power cord pulled out of the wall outlet) ★★	
	124	APL_TXD	PLE LINK		0 clock signal used during data transmission (5Vac), 5Vdc when no data are transmitted.	clock signal used during data transmission (5Vac), 5Vdc when no data are transmitted.	clock signal used during data transmission (5Vac), 5Vdc when no data are transmitted.	clock signal used during data transmission (5Vac), 5Vdc when no data are transmitted.	0	0	COMM SLOT I/F→COMM CARD
	125	SLT_Ve r	Generation information	0	0	0	0	0	0	0	COMM CARD→COMM SLOT I/F
CN2301 CN2401	1	REMIN	Infrared remote control data	0 Clock signal (4.4Vac) when data are received; 4.4Vdc when no data are received.	Clock signal (4.4Vac) when data are received; 4.4Vdc when no data are received.	Clock signal (4.4Vac) when data are received; 4.4Vdc when no data are received.	Clock signal (4.4Vac) when data are received; 4.4Vdc when no data are received.	0	0	0	COMM CARD→COMM SLOT I/F LED2→COMM SLOT I/F
	2	LEDCTL1	LED(RED)	0	0	0	5	5	0	0	COMM SLOT I/F→LED2
	3	LEDCTL2	LED(GREEN)	0	5	5	0	0	0	0	COMM SLOT I/F→LED2
	4	GND	GND	0	0	0	0	0	0	0	-
	5	RLS	Optical sensor	0	Illumination 100x 1Vdc, Illumination 200x 2Vdc	Illumination 100x 1Vdc, Illumination 200x 2Vdc	Illumination 100x 1Vdc, Illumination 200x 2Vdc	Illumination 100x 1Vdc, Illumination 200x 2Vdc	0	0	LED2→COMM SLOT I/F
	6	VDDM3.3V	3.3V power supply for microcomputer	0	3.3	3.3	3.3	3.3	0	0	COMM SLOT I/F→LED2
	7	GND	GND	0	0	0	0	0	0	0	-
	8	VDDM5V	5V power supply for microcomputer	0	5	5	5	5	0	0	COMM SLOT I/F→LED2
AV CN1005	1	SLOT_VD	VD for ANALOG SYNC	MAIN	0 Synchronized signal of SLOT HIGH MIN 2.4V, LOW MAX 0.9V	Synchronized signal of SLOT HIGH MIN 2.4V, LOW MAX 0.9V	0	0	0	0	VIDEO SLOT I/F→MAIN
	2	GND	GND	MAIN	0	0	0	0	0	0	-
	3	GND	GND	MAIN	0	0	0	0	0	0	-
	4	AUDIO_L	AUDIO L ch	MAIN	0	0 Audio signal of SLOT	0	0	0	0	VIDEO SLOT I/F→MAIN
	5	SLOT_HD	HD for ANALOG SYNC	MAIN	0	0 Synchronized signal of SLOT HIGH MIN 2.4V, LOW MAX 0.9V	0	0	0	0	VIDEO SLOT I/F→MAIN
	6	GND	GND	MAIN	0	0	0	0	0	0	-
	7	GND	GND	MAIN	0	0	0	0	0	0	-
	8	AUDIO_R	AUDIO R ch	MAIN	0	0 Audio signal of SLOT	0	0	0	0	VIDEO SLOT I/F→MAIN
	9	R(R-Y)	RED(Cr or Pr) for ANALOG	MAIN	0	0 Video signal 0.7Vp-p	0	0	0	0	VIDEO SLOT I/F→MAIN
	10	GND	GND	MAIN	0	0	0	0	0	0	-
	11	GND	GND	MAIN	0	0	0	0	0	0	-
	12	NC	Non-connection terminal	MAIN	-	-	-	-	-	-	-
	13	B(B-Y)	BLUE(Cb or Pb) for ANALOG	MAIN	0	0 Video signal 0.7Vp-p	0	0	0	0	VIDEO SLOT I/F→MAIN
	14	GND	GND	MAIN	0	0	0	0	0	0	-
	15	GND	GND	MAIN	0	0	0	0	0	0	-
	16	NC	Non-connection terminal	MAIN	-	-	-	-	-	-	-
	17	Y(G)ON_SYNC	GREEN(Y) for ANALOG(on Sync)	MAIN	0	0 Video signal 0.7~1.0Vp-p	0	0	0	0	VIDEO SLOT I/F→MAIN
	18	GND	GND	MAIN	0	0	0	0	0	0	-
	19	GND	GND	MAIN	0	0	0	0	0	0	-
	20	NC	Non-connection terminal	MAIN	-	-	-	-	-	-	-
AV CN5004	19	VD_SA	VD for ANALOG SYNC	VIDEO SLOT I/F	0	0 Synchronized signal of SLOT HIGH MIN 2.4V, LOW MAX 0.9V	0	0	0	0	VIDEO SLOT I/F→MAIN
	20	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-
	17	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-
	18	AUDIO_L	AUDIO L ch	VIDEO SLOT I/F	0	0 Audio signal of SLOT	0	0	0	0	VIDEO SLOT I/F→MAIN
	15	HD_SA	HD for ANALOG SYNC	VIDEO SLOT I/F	0	0 Synchronized signal of SLOT HIGH MIN 2.4V, LOW MAX 0.9V	0	0	0	0	VIDEO SLOT I/F→MAIN
	16	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-
	13	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-
	14	AUDIO_R	AUDIO R ch	VIDEO SLOT I/F	0	0 Audio signal of SLOT	0	0	0	0	VIDEO SLOT I/F→MAIN
	11	R(R-Y)	RED(Cr or Pr) for ANALOG	VIDEO SLOT I/F	0	0 Video signal 0.7Vp-p	0	0	0	0	VIDEO SLOT I/F→MAIN
	12	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-
	9	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-
	10	NC	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-
	7	B(B-Y)	BLUE(Cb or Pb) for ANALOG	VIDEO SLOT I/F	0	0 Video signal 0.7Vp-p	0	0	0	0	VIDEO SLOT I/F→MAIN
	8	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-
	5	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-
	6	NC	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-
	3	Y(G)ON_SYNC	GREEN(Y) for ANALOG(on Sync)	VIDEO SLOT I/F	0	0 Video signal 0.7~1.0Vp-p	0	0	0	0	VIDEO SLOT I/F→MAIN
	4	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-
	1	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-
	2	NC	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-
	1	NC	Non-connection terminal	MAIN	-	-	-	-	-	-	-
D3 CN5301	2	PNP_WR	EEPROM WRITE PROTECT	MAIN	0	0	0	0	0	0	MAIN→VIDEO SLOT I/F
	3	VCC_DOWN1	VIDEO CARD voltage surveillance	MAIN	0	Normal 3.3Vdc, unusual 0Vdc	Normal 3.3Vdc, unusual 0Vdc	0	0	0	VIDEO SLOT I/F→MAIN
	4	GND	GND	MAIN	0	0	0	0	0	0	-
	5	SCL5	Clock line of the I2C bus	MAIN	0 Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	0	0	0	0	MAIN→VIDEO SLOT I/F

A

B

C

D

E

F

Name	Pin No.	Pin name	FuNon-connection terminalion	Basic operation(Numerical unit:Vdc, except for case whwn units are individually indicated)								Signal direction (DR : Data Relay)	
				AC power ON (Power coad connected to the wal outlet) ★★	MAIN POWER "ON" ★		Power management ★★★	Standby ★★★	Main power OFF ★★	AC Power OFF (Power cord pulled out of the wall outlet ★★			
					No signal	With signal							
D3 CN5301	6	SDA5	Data line of the I2C bus	MAIN	0	During data exchange: Clock signal (3.3Vac),datanot exchanged: 3.3Vdc	During data exchange: Clock signal (3.3Vac),datanot exchanged: 3.3Vdc	0	0	0	0	MAIN→VIDEO SLOT I/F	
	7	SCL_VS	Clock line of the I2C bus	MAIN	0	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	0	0	0	0	MAIN→VIDEO SLOT I/F	
	8	SDA_VS	Data line of the I2C bus	MAIN	0	During data exchange: Clock signal (3.3Vac),datanot exchanged: 3.3Vdc	During data exchange: Clock signal (3.3Vac),datanot exchanged: 3.3Vdc	0	0	0	0	MAIN→VIDEO SLOT I/F	
	9	GND	GND	MAIN	0	0	0	0	0	0	0	-	
	10	IN4_DET	INPUT4 SIGNAL DETECT for AUTO POWER OFF	MAIN	0	When INPUT4 signal is inputted, 0V. When INPUT4 signal is not inputted, 5Vdc	When INPUT4 signal is inputted, 0V. When INPUT4 signal is not inputted, 5Vdc	0	0	0	0	VIDEO SLOT I/F→MAIN	
	11	SLOT_ST1	CARD TYPE SELECT	MAIN	0	When equipped with PDA-5003, 0V. When equipped with PDA-5004 0.36Vdc	When equipped with PDA-5003, 0V. When equipped with PDA-5004 0.36Vdc	When equipped with PDA-5003, 0V. When equipped with PDA-5004 0.36Vdc	When equipped with PDA-5003, 0V. When equipped with PDA-5004 0.36Vdc	0	0	0	VIDEO SLOT I/F→MAIN
	12	S_DIN_SEL	Digital INPUT SELECTOR	MAIN	0	SLOT digital ON 0V, SLOT digital OFF 3.3Vdc	SLOT digital ON 0V, SLOT digital OFF 3.3Vdc	SLOT digital ON 0V, SLOT digital OFF 3.3Vdc	SLOT digital ON 0V, SLOT digital OFF 3.3Vdc	0	0	0	MAIN→VIDEO SLOT I/F
	13	FNC1	FUNCTION LOGIC	MAIN	0	INPUT3,5 select 5Vdc, INPUT4 select 0V	INPUT3,5 select 5Vdc, INPUT4 select 0V	INPUT3,5 select 5Vdc, INPUT4 select 0V	INPUT3,5 select 5Vdc, INPUT4 select 0V	0	0	0	MAIN→VIDEO SLOT I/F
	14	SLOT_ST2	CARD DETECT for OEM/PIONEER	MAIN	0	PIONEER CARD : 3Vdc, OEM CARD : 0V	PIONEER CARD : 3Vdc, OEM CARD : 0V	PIONEER CARD : 3Vdc, OEM CARD : 0V	PIONEER CARD : 3Vdc, OEM CARD : 0V	0	0	0	VIDEO SLOT I/F→MAIN
	15	IR	Infrared remote control data	MAIN	0	Clock signal (4.4Vac) when data are received; 4.4Vdc when no data are received.	Clock signal (4.4Vac) when data are received; 4.4Vdc when no data are received.	Clock signal (4.4Vac) when data are received; 4.4Vdc when no data are received.	Clock signal (4.4Vac) when data are received; 4.4Vdc when no data are received.	0	0	0	MAIN→VIDEO SLOT I/F
	16	FNC0	FUNCTION LOGIC	MAIN	0	INPUT4,5 select 5Vdc, INPUT3 select 0V	INPUT4,5 select 5Vdc, INPUT3 select 0V	INPUT4,5 select 5Vdc, INPUT3 select 0V	INPUT4,5 select 5Vdc, INPUT3 select 0V	0	0	0	MAIN→VIDEO SLOT I/F
	17	G4G	3G4G DISCERMMENT	MAIN	0	When equipped with 3G CARD, 0V. When equipped with 4G CARD, 3.3Vdc	When equipped with 3G CARD, 0V. When equipped with 4G CARD, 3.3Vdc	When equipped with 3G CARD, 0V. When equipped with 4G CARD, 3.3Vdc	When equipped with 3G CARD, 0V. When equipped with 4G CARD, 3.3Vdc	0	0	0	VIDEO SLOT I/F→MAIN
	18	DSUBSW_DET	INPUT1⇔VIDEO CARD ANALOG OUT SELECT	MAIN	0	3.3Vdc : INPUT1 select, 0V : VIDEO CARD select	3.3Vdc : INPUT1 select, 0V : VIDEO CARD select	3.3Vdc : INPUT1 select, 0V : VIDEO CARD select	3.3Vdc : INPUT1 select, 0V : VIDEO CARD select	0	0	0	VIDEO SLOT I/F→MAIN
	19	GND	GND	MAIN	0	0	0	0	0	0	0	0	-
	20	YYOB12	NC	MAIN	0	0	0	0	0	0	0	0	-
	21	YYOB11	RESERVE	MAIN	0	3.3	3.3	3.3	3.3	0	0	0	VIDEO SLOT I/F⇔MAIN
	22	GND	GND	MAIN	0	0	0	0	0	0	0	0	-
	23	GPC5	VIDEO CARD⇔COMM CARD LINE	MAIN	0	0	0	0	0	0	0	0	VIDEO SLOT I/F⇔MAIN
	24	GPC2	VIDEO CARD⇔COMM CARD LINE	MAIN	0	0	0	0	0	0	0	0	VIDEO SLOT I/F⇔MAIN
	25	GPC4	VIDEO CARD⇔COMM CARD LINE	MAIN	0	0	0	0	0	0	0	0	VIDEO SLOT I/F⇔MAIN
	26	GPC1	VIDEO CARD⇔COMM CARD LINE	MAIN	0	0	0	0	0	0	0	0	VIDEO SLOT I/F⇔MAIN
	27	GPC3	VIDEO CARD⇔COMM CARD LINE	MAIN	0	0	0	0	0	0	0	0	VIDEO SLOT I/F⇔MAIN
	28	HYOUJI_X	2 SCREENS Permit/Prohibit	MAIN	0	Permit 0Vdc, Prohibit 3.3Vdc	Permit 0Vdc, Prohibit 3.3Vdc	Permit 0Vdc, Prohibit 3.3Vdc	Permit 0Vdc, Prohibit 3.3Vdc	0	0	0	VIDEO SLOT I/F→MAIN
	29	GND	GND	MAIN	0	0	0	0	0	0	0	0	-
	30	IN5_HD	INPUT5 SYNC	MAIN	INPUT5 SYNC	0	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	VIDEO SLOT I/F→MAIN
	31	IN5_VD	INPUT5 SYNC	MAIN	INPUT5 SYNC	0	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	VIDEO SLOT I/F→MAIN
	32	GND	GND	MAIN	0	0	0	0	0	0	0	0	-
	33	SOUND1	VIDEO CARD AUDIO SELECT	MAIN	0	INPUT4,5 Audio select 3.4Vdc	INPUT4,5 Audio select 3.4Vdc	INPUT4,5 Audio select 3.4Vdc	INPUT4,5 Audio select 3.4Vdc	0	0	0	MAIN→VIDEO SLOT I/F
	34	FNC2	VIDEO select	MAIN	0	INPUT3 select 0Vdc, INPUT4,5 select 3.3Vdc	INPUT3 select 0Vdc, INPUT4,5 select 3.3Vdc	INPUT3 select 0Vdc, INPUT4,5 select 3.3Vdc	INPUT3 select 0Vdc, INPUT4,5 select 3.3Vdc	0	0	0	MAIN→VIDEO SLOT I/F
	35	FNC3	VIDEO select	MAIN	0	INPUT4 select 0Vdc, INPUT3,5 select 3.3Vdc	INPUT4 select 0Vdc, INPUT3,5 select 3.3Vdc	INPUT4 select 0Vdc, INPUT3,5 select 3.3Vdc	INPUT4 select 0Vdc, INPUT3,5 select 3.3Vdc	0	0	0	MAIN→VIDEO SLOT I/F
	36	SOUND2	VIDEO CARD AUDIO SELECT	MAIN	0	INPUT3,5 Audio select 3.4Vdc	INPUT3,5 Audio select 3.4Vdc	INPUT3,5 Audio select 3.4Vdc	INPUT3,5 Audio select 3.4Vdc	0	0	0	MAIN→VIDEO SLOT I/F
	37	SD_SEL	DIGITAL SIGNAL FORMAT SELECT	MAIN	0	A/D Input Port, No VIDEO CARD 3.3Vdc	A/D Input Port, No VIDEO CARD 3.3Vdc	A/D Input Port, No VIDEO CARD 3.3Vdc	A/D Input Port, No VIDEO CARD 3.3Vdc	0	0	0	VIDEO SLOT I/F→MAIN

Name	Pin No.	Pin name	FuNon-connection termination	Basic operation(Numerical unit:Vdc, except for case when units are individually indicated)								Signal direction (DR : Data Relay)
				AC power ON (Power cord connected to the wal outlet) ★★	MAIN POWER "ON"★		Power management ★★★	Standby ★★★	Main power OFF ★★	AC Power OFF (Power cord pulled out of the wall outlet) ★★		
					No signal	With signal						
	38	SLOT_ST3	CARD TYPE SELECT	MAIN	0	A/D Input Port, No VIDEO CARD 3.3Vdc	A/D Input Port, No VIDEO CARD 3.3Vdc	A/D Input Port, No VIDEO CARD 3.3Vdc	A/D Input Port, No VIDEO CARD 3.3Vdc	0	0	VIDEO SLOT I/F→MAIN
	39	RESETX1	RESET	MAIN	0	RESET 0V, Release RESET 3.3Vdc	RESET 0V, Release RESET 3.3Vdc	RESET 0V, Release RESET 3.3Vdc	RESET 0V, Release RESET 3.3Vdc	0	0	MAIN→VIDEO SLOT I/F
	40	GND	GND	MAIN	0	0	0	0	0	0	0	-
	41	INT_EXT	IF U / 232C SELECT	MAIN	0	0V : 232C CONNECTOR⇔ VIDEO CARD, 3.3Vdc : PDP⇔ VIDEO CARD	0V : 232C CONNECTOR⇔ VIDEO CARD, 3.3Vdc : PDP⇔ VIDEO CARD	0V : 232C CONNECTOR⇔ VIDEO CARD, 3.3Vdc : PDP⇔ VIDEO CARD	0V : 232C CONNECTOR⇔ VIDEO CARD, 3.3Vdc : PDP⇔ VIDEO CARD	0	0	VIDEO SLOT I/F→MAIN
	42	RXD_CARD	UART chosen by GET_UART	MAIN	0	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	0	0	MAIN→VIDEO SLOT I/F
	43	FIRST_RXD	RXD Direct to 232C	MAIN	0	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	0	0	MAIN→VIDEO SLOT I/F
	44	TXD_CARD	UART chosen by GET_UART	MAIN	0	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	0	0	VIDEO SLOT I/F→MAIN
	45	GET_UART	U-ART PROCESS SELECT	MAIN	0	3.3Vdc : 232C Connector⇔ PDP, 0V : 232C Connector⇔ VIDEO CARD, PDP⇔ VIDEO CARD	3.3Vdc : 232C Connector⇔ PDP, 0V : 232C Connector⇔ VIDEO CARD, PDP⇔ VIDEO CARD	3.3Vdc : 232C Connector⇔ PDP, 0V : 232C Connector⇔ VIDEO CARD, PDP⇔ VIDEO CARD	3.3Vdc : 232C Connector⇔ PDP, 0V : 232C Connector⇔ VIDEO CARD, PDP⇔ VIDEO CARD	0	0	VIDEO SLOT I/F→MAIN
	46	GND	GND	MAIN	0	0	0	0	0	0	0	-
	47	KEY	KEY SIGNAL	MAIN	0	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	0	0	MAIN→VIDEO SLOT I/F
	48	NC	Non-connection terminal	MAIN	-	-	-	-	-	-	-	-
	49	NC	Non-connection terminal	MAIN	-	-	-	-	-	-	-	-
	50	VDDM3.3V	3.3V supply for microcomputer	MAIN	0	3.3	3.3	3.3	3.3	0	0	MAIN→VIDEO SLOT I/F
D3 CN4004	50	NC	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-
	49	PNP_WR	EEPROM WRITE PROTECT	VIDEO SLOT I/F	0	0	0	0	0	0	0	MAIN→VIDEO SLOT I/F
	48	VCC_DOWN1	VIDEO CARD voltage surveillance	VIDEO SLOT I/F	0	Normal 3.3Vdc, Unusual 0Vdc	Normal 3.3Vdc, Unusual 0Vdc	0	0	0	0	VIDEO SLOT I/F→MAIN
	47	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	46	SCL5	Clock line of the I2C bus	VIDEO SLOT I/F	0	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	0	0	0	0	MAIN→VIDEO SLOT I/F
	45	SDA5	Data line of the I2C bus	VIDEO SLOT I/F	0	During data exchange: Clock signal (3.3Vac), datanot exchanged: 3.3Vdc	During data exchange: Clock signal (3.3Vac), datanot exchanged: 3.3Vdc	0	0	0	0	MAIN→VIDEO SLOT I/F
	44	SCL_VS	Clock line of the I2C bus	VIDEO SLOT I/F	0	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	0	0	0	0	MAIN→VIDEO SLOT I/F
	43	SDA_VS	Data line of the I2C bus	VIDEO SLOT I/F	0	During data exchange: Clock signal (3.3Vac), datanot exchanged: 3.3Vdc	During data exchange: Clock signal (3.3Vac), datanot exchanged: 3.3Vdc	0	0	0	0	MAIN→VIDEO SLOT I/F
	42	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	41	IN4_DET	INPUT4 SIGNAL DETECT for AUTO POWER OFF	VIDEO SLOT I/F	0	With INPUT4 0V, Without INPUT4 5Vdc	With INPUT4 0V, Without INPUT4 5Vdc	0	0	0	0	VIDEO SLOT I/F→MAIN
	40	SLOT_ST1	CARD TYPE SELECT	VIDEO SLOT I/F	0	When equipped with PDA-5003, 0V, When equipped with PDA-5004 0.36Vdc	When equipped with PDA-5003, 0V, When equipped with PDA-5004 0.36Vdc	When equipped with PDA-5003, 0V, When equipped with PDA-5004 0.36Vdc	When equipped with PDA-5003, 0V, When equipped with PDA-5004 0.36Vdc	0	0	VIDEO SLOT I/F→MAIN
	39	S_DIN_SEL	Digital INPUT SELECTOR	VIDEO SLOT I/F	0	SLOT digital ON 0V, SLOT digital OFF 3.3Vdc	SLOT digital ON 0V, SLOT digital OFF 3.3Vdc	SLOT digital ON 0V, SLOT digital OFF 3.3Vdc	SLOT digital ON 0V, SLOT digital OFF 3.3Vdc	0	0	MAIN→VIDEO SLOT I/F
	38	FNC1	FUNCTION LOGIC	VIDEO SLOT I/F	0	INPUT3,5 select 5Vdc, INPUT4 select 0V	INPUT3,5 select 5Vdc, INPUT4 select 0V	INPUT3,5 select 5Vdc, INPUT4 select 0V	INPUT3,5 select 5Vdc, INPUT4 select 0V	0	0	MAIN→VIDEO SLOT I/F
	37	SLOT_ST2	CARD DETECT for OEM/PIONEER	VIDEO SLOT I/F	0	PIONEER CARD : 3Vdc, OEM CARD : 0V	PIONEER CARD : 3Vdc, OEM CARD : 0V	PIONEER CARD : 3Vdc, OEM CARD : 0V	PIONEER CARD : 3Vdc, OEM CARD : 0V	0	0	VIDEO SLOT I/F→MAIN
	36	IR	INFRARED REMOTE CONTROL DATA	VIDEO SLOT I/F	0	Clock signal (4.4Vac) when data are received, 4.4Vdc when no data are received.	Clock signal (4.4Vac) when data are received, 4.4Vdc when no data are received.	Clock signal (4.4Vac) when data are received, 4.4Vdc when no data are received.	Clock signal (4.4Vac) when data are received, 4.4Vdc when no data are received.	0	0	MAIN→VIDEO SLOT I/F

Name	Pin No.	Pin name	FuNon-connection terminalion	Basic operation(Numerical unit:Vdc, except for case whwn units are individually indicated)								Signal direction (DR : Data Relay)
				AC power ON (Power coad connected to the wal outlet) ★★	MAIN POWER "ON" ★		Power management ★★★	Standby ★★★	Main power OFF ★★	AC Power OFF (Power cord pulled out of the wall outlet ★★		
					No signal	With signal						
	35	FNC0	FUNCTION LOGIC	VIDEO SLOT I/F	0	INPUT4,5 Select 5Vdc, INPUT3 Select 0V	INPUT4,5 Select 5Vdc, INPUT3 Select 0V	INPUT4,5 Select 5Vdc, INPUT3 Select 0V	INPUT4,5 Select 5Vdc, INPUT3 Select 0V	0	0	MAIN→VIDEO SLOT I/F
	34	G4G	3G4G DISCERMMENT	VIDEO SLOT I/F	0	When equipped with 3G CARD, 0V. When equipped with 4G CARD, 3.3Vdc	When equipped with 3G CARD, 0V. When equipped with 4G CARD, 3.3Vdc	When equipped with 3G CARD, 0V. When equipped with 4G CARD, 3.3Vdc	When equipped with 3G CARD, 0V. When equipped with 4G CARD, 3.3Vdc	0	0	VIDEO SLOT I/F→MAIN
	33	DSUBSW_DET	INPUT1⇔VIDEO CARD ANALOG OUT SELECT	VIDEO SLOT I/F	0	3.3Vdc : INPUT1 select, 0V : VIDEO CARD select	3.3Vdc : INPUT1 select, 0V : VIDEO CARD select	3.3Vdc : INPUT1 select, 0V : VIDEO CARD select	3.3Vdc : INPUT1 select, 0V : VIDEO CARD select	0	0	VIDEO SLOT I/F→MAIN
	32	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	31	VYOB12	NC	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	30	VYOB11	RESERVE	VIDEO SLOT I/F	0	3.3	3.3	3.3	3.3	0	0	VIDEO SLOT I/F⇔MAIN
	29	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	28	GPC5	VIDEO CARD⇔COMM CARD LINE	VIDEO SLOT I/F	0	0	0	0	0	0	0	VIDEO SLOT I/F⇔MAIN
	27	GPC2	VIDEO CARD⇔COMM CARD LINE	VIDEO SLOT I/F	0	0	0	0	0	0	0	VIDEO SLOT I/F⇔MAIN
	26	GPC4	VIDEO CARD⇔COMM CARD LINE	VIDEO SLOT I/F	0	0	0	0	0	0	0	VIDEO SLOT I/F⇔MAIN
	25	GPC1	VIDEO CARD⇔COMM CARD LINE	VIDEO SLOT I/F	0	0	0	0	0	0	0	VIDEO SLOT I/F⇔MAIN
	24	GPC3	VIDEO CARD⇔COMM CARD LINE	VIDEO SLOT I/F	0	0	0	0	0	0	0	VIDEO SLOT I/F⇔MAIN
	23	HYOUJ_X	2 SCREENS Permit/Prohibit	VIDEO SLOT I/F	0	Permit 0Vdc, Prohibit 3.3Vdc	Permit 0Vdc, Prohibit 3.3Vdc	Permit 0Vdc, Prohibit 3.3Vdc	Permit 0Vdc, Prohibit 3.3Vdc	0	0	VIDEO SLOT I/F→MAIN
	22	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	21	IN5_HD	INPUT5 SYNC	VIDEO SLOT I/F	INPUT5 SYNC	0 INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	VIDEO SLOT I/F→MAIN
	20	IN5_VD	INPUT5 SYNC	VIDEO SLOT I/F	INPUT5 SYNC	0 INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	VIDEO SLOT I/F→MAIN
	19	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	18	SOUND1	VIDEO CARD AUDIO SELECT	VIDEO SLOT I/F	0	INPUT4,5 AUDIO SELECT 3.4Vdc	INPUT4,5 AUDIO SELECT 3.4Vdc	INPUT4,5 AUDIO SELECT 3.4Vdc	0	0	0	MAIN→VIDEO SLOT I/F
	17	FNC2	VIDEO SELECT	VIDEO SLOT I/F	0	INPUT3 SELECT 0Vdc, INPUT4,5 SELECT 3.3Vdc	INPUT3 SELECT 0Vdc, INPUT4,5 SELECT 3.3Vdc	INPUT3 SELECT 0Vdc, INPUT4,5 SELECT 3.3Vdc	INPUT3 SELECT 0Vdc, INPUT4,5 SELECT 3.3Vdc	0	0	MAIN→VIDEO SLOT I/F
	16	FNC3	VIDEO SELECT	VIDEO SLOT I/F	0	INPUT4 SELECT 0Vdc, INPUT3,5 SELECT 3.3Vdc	INPUT4 SELECT 0Vdc, INPUT3,5 SELECT 3.3Vdc	INPUT4 SELECT 0Vdc, INPUT3,5 SELECT 3.3Vdc	INPUT4 SELECT 0Vdc, INPUT3,5 SELECT 3.3Vdc	0	0	MAIN→VIDEO SLOT I/F
	15	SOUND2	VIDEO CARD AUDIO SELECT	VIDEO SLOT I/F	0	INPUT3,5 AUDIO SELECT 3.4Vdc	INPUT3,5 AUDIO SELECT 3.4Vdc	INPUT3,5 AUDIO SELECT 3.4Vdc	0	0	0	MAIN→VIDEO SLOT I/F
	14	SD_SEL	DIGITAL SIGNAL FORMAT SELECT	VIDEO SLOT I/F	0	A/D Input Port, No VIDEO CARD 3.3Vdc	A/D Input Port, No VIDEO CARD 3.3Vdc	A/D Input Port, No VIDEO CARD 3.3Vdc	A/D Input Port, No VIDEO CARD 3.3Vdc	0	0	VIDEO SLOT I/F→MAIN
	13	SLOT_ST3	CARD TYPE SELECT	VIDEO SLOT I/F	0	A/D Input Port, No VIDEO CARD 3.3Vdc	A/D Input Port, No VIDEO CARD 3.3Vdc	A/D Input Port, No VIDEO CARD 3.3Vdc	A/D Input Port, No VIDEO CARD 3.3Vdc	0	0	VIDEO SLOT I/F→MAIN
	12	RESETX1	RESET	VIDEO SLOT I/F	0	RESET 0V, Release RESET 3.3Vdc	RESET 0V, Release RESET 3.3Vdc	RESET 0V, Release RESET 3.3Vdc	RESET 0V, Release RESET 3.3Vdc	0	0	MAIN→VIDEO SLOT I/F
	11	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	10	INT_EXT	I/F U / 232C SELECT	VIDEO SLOT I/F	0	0V : 232C CONNECTOR⇔ VIDEO CARD, 3.3Vdc : PDP⇔ VIDEO CARD	0V : 232C CONNECTOR⇔ VIDEO CARD, 3.3Vdc : PDP⇔ VIDEO CARD	0V : 232C CONNECTOR⇔ VIDEO CARD, 3.3Vdc : PDP⇔ VIDEO CARD	0V : 232C CONNECTOR⇔ VIDEO CARD, 3.3Vdc : PDP⇔ VIDEO CARD	0	0	VIDEO SLOT I/F→MAIN
	9	RXD_CARD	UART chosen by GET_UART	VIDEO SLOT I/F	0	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	0	0	MAIN→VIDEO SLOT I/F
	8	FIRST_RXD	RXD Direct to 232C	VIDEO SLOT I/F	0	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	0	0	MAIN→VIDEO SLOT I/F
	7	TXD_CARD	UART chosen by GET_UART	VIDEO SLOT I/F	0	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	0	0	VIDEO SLOT I/F→MAIN
	6	GET_UART	U-ART PROCESS SELECT	VIDEO SLOT I/F	0	3.3Vdc : 232C Connector⇔ PDP, 0V : 232C Connector⇔ VIDEO CARD, PDP⇔ VIDEO CARD	3.3Vdc : 232C Connector⇔ PDP, 0V : 232C Connector⇔ VIDEO CARD, PDP⇔ VIDEO CARD	3.3Vdc : 232C Connector⇔ PDP, 0V : 232C Connector⇔ VIDEO CARD, PDP⇔ VIDEO CARD	3.3Vdc : 232C Connector⇔ PDP, 0V : 232C Connector⇔ VIDEO CARD, PDP⇔ VIDEO CARD	0	0	VIDEO SLOT I/F→MAIN
	5	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-

Name	Pin No.	Pin name	FuNon-connection termination	Basic operation(Numerical unit:Vdc, except for case when units are individually indicated)							Signal direction (DR : Data Relay)	
				AC power ON (Power cord connected to the wal outlet) ★★	MAIN POWER "ON"★		Power management ★★★	Standby ★★★	Main power OFF ★★	AC Power OFF (Power cord pulled out of the wall outlet) ★★		
					No signal	With signal						
	4	KEY	KEY SIGNAL	VIDEO SLOT I/F	0	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used duaring data received (3.3Vac), 3.3Vdc when no data are received.	0	0	MAIN→VIDEO SLOT I/F
	3	NC	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-
	2	NC	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-
	1	VDDM3.3V	3.3V power supply for microcomputer	VIDEO SLOT I/F	0	3.3	3.3	3.3	3.3	0	0	MAIN→VIDEO SLOT I/F
D2 CN6302	1	GND	GND	MAIN	0	0	0	0	0	0	0	-
	2	RA0	RED DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	3	GND	GND	MAIN	0	0	0	0	0	0	0	-
	4	BB7	BLUE DIGITAL(2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	5	GND	GND	MAIN	0	0	0	0	0	0	0	-
	6	RA1	RED DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	7	GND	GND	MAIN	0	0	0	0	0	0	0	-
	8	BB6	BLUE DIGITAL(2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	9	GND	GND	MAIN	0	0	0	0	0	0	0	-
	10	RA2	RED DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	11	GND	GND	MAIN	0	0	0	0	0	0	0	-
	12	BB5	BLUE DIGITAL(2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	13	GND	GND	MAIN	0	0	0	0	0	0	0	-
	14	RA3	RED DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	15	GND	GND	MAIN	0	0	0	0	0	0	0	-
	16	BB4	BLUE DIGITAL(2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	17	GND	GND	MAIN	0	0	0	0	0	0	0	-
	18	RA4	RED DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	19	GND	GND	MAIN	0	0	0	0	0	0	0	-
	20	BB3	BLUE DIGITAL(2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	21	GND	GND	MAIN	0	0	0	0	0	0	0	-
	22	RA5	RED DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	23	GND	GND	MAIN	0	0	0	0	0	0	0	-
	24	BB2	BLUE DIGITAL(2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	25	GND	GND	MAIN	0	0	0	0	0	0	0	-
	26	RA6	RED DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	27	GND	GND	MAIN	0	0	0	0	0	0	0	-
	28	BB1	BLUE DIGITAL(2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	29	GND	GND	MAIN	0	0	0	0	0	0	0	-
	30	RA7	RED DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	31	GND	GND	MAIN	0	0	0	0	0	0	0	-
	32	BB0	BLUE DIGITAL(2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	33	GND	GND	MAIN	0	0	0	0	0	0	0	-
	34	GA0	GREEN DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	35	GND	GND	MAIN	0	0	0	0	0	0	0	-
	36	GB7	GREEN DIGITAL(2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	37	GND	GND	MAIN	0	0	0	0	0	0	0	-
	38	GA1	GREEN DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	39	GND	GND	MAIN	0	0	0	0	0	0	0	-
	40	GB6	GREEN DIGITAL(2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	41	GND	GND	MAIN	0	0	0	0	0	0	0	-
	42	GA2	GREEN DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	43	GND	GND	MAIN	0	0	0	0	0	0	0	-
	44	GB5	GREEN DIGITAL(2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	45	GND	GND	MAIN	0	0	0	0	0	0	0	-
	46	GA3	GREEN DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	47	GND	GND	MAIN	0	0	0	0	0	0	0	-
	48	GB4	GREEN DIGITAL(2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	49	GND	GND	MAIN	0	0	0	0	0	0	0	-
	50	GA4	GREEN DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
D2 CN4003	50	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	49	RA0	RED DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	48	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	47	BB7	BLUE DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	46	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	45	RA1	RED DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	44	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	43	BB6	BLUE DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	42	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	41	RA2	RED DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	40	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	39	BB5	BLUE DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	38	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	37	RA3	RED DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	36	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	35	BB4	BLUE DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	34	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	33	RA4	RED DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	32	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	31	BB3	BLUE DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	30	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	29	RA5	RED DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	28	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	27	BB2	BLUE DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	26	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	25	RA6	RED DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	24	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	23	BB1	BLUE DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	22	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	21	RA7	RED DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	20	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	19	BB0	BLUE DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
18	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
17	GA0	GREEN DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN	
16	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
15	GB7	GREEN DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN	
14	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
13	GA1	GREEN DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN	
12	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
11	GB6	GREEN DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN	
10	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
9	GA2	GREEN DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN	
8	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
7	GB5	GREEN DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN	
6	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
5	GA3	GREEN DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN	
4	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
3	GB4	GREEN DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN	
2	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
1	GA4	GREEN DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN	
D1	1	GB3	GREEN DIGITAL(2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN

Name	Pin No.	Pin name	FuNon-connection termination	Basic operation(Numerical unit:Vdc, except for case whwn units are individually indicated)								Signal direction (DR : Data Relay)
				AC power ON (Power cord connected to the wal outlet) ★★	MAIN POWER "ON"★		Power management ★★★	Standby ★★★	Main power OFF ★★	AC Power OFF (Power cord pulled out of the wall outlet) ★★		
					No signal	With signal						
CN6301	2	GND	GND	MAIN	0	0	0	0	0	0	0	-
	3	GA5	GREEN DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	4	GND	GND	MAIN	0	0	0	0	0	0	0	-
	5	GB2	GREEN DIGITAL(2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	6	GND	GND	MAIN	0	0	0	0	0	0	0	-
	7	GA6	GREEN DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	8	GND	GND	MAIN	0	0	0	0	0	0	0	-
	9	GB1	GREEN DIGITAL(2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	10	GND	GND	MAIN	0	0	0	0	0	0	0	-
	11	GA7	GREEN DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	12	GND	GND	MAIN	0	0	0	0	0	0	0	-
	13	GB0	GREEN DIGITAL(2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	14	GND	GND	MAIN	0	0	0	0	0	0	0	-
	15	BA0	BLUE DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	16	GND	GND	MAIN	0	0	0	0	0	0	0	-
	17	RB7	RED DIGITAL (2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	18	GND	GND	MAIN	0	0	0	0	0	0	0	-
	19	BA1	BLUE DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	20	GND	GND	MAIN	0	0	0	0	0	0	0	-
	21	RB6	RED DIGITAL (2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	22	GND	GND	MAIN	0	0	0	0	0	0	0	-
	23	BA2	BLUE DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	24	GND	GND	MAIN	0	0	0	0	0	0	0	-
	25	RB5	RED DIGITAL (2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	26	GND	GND	MAIN	0	0	0	0	0	0	0	-
	27	BA3	BLUE DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	28	GND	GND	MAIN	0	0	0	0	0	0	0	-
	29	RB4	RED DIGITAL (2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	30	GND	GND	MAIN	0	0	0	0	0	0	0	-
	31	BA4	BLUE DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	32	GND	GND	MAIN	0	0	0	0	0	0	0	-
	33	RB3	RED DIGITAL (2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	34	GND	GND	MAIN	0	0	0	0	0	0	0	-
	35	BA5	BLUE DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	36	GND	GND	MAIN	0	0	0	0	0	0	0	-
	37	RB2	RED DIGITAL (2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	38	GND	GND	MAIN	0	0	0	0	0	0	0	-
	39	BA6	BLUE DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	40	GND	GND	MAIN	0	0	0	0	0	0	0	-
	41	RB1	RED DIGITAL (2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	42	GND	GND	MAIN	0	0	0	0	0	0	0	-
	43	BA7	BLUE DIGITAL(1,2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	44	GND	GND	MAIN	0	0	0	0	0	0	0	-
	45	RB0	RED DIGITAL (2ch)	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	46	GND	GND	MAIN	0	0	0	0	0	0	0	-
	47	CLK	CLK	MAIN	0	3.3Vac	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	48	DE	DE for SYSTEM SYNC	MAIN	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	49	HD	HD for DIGITAL SYNC	MAIN	0	0	SYNC 3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	50	VD	VD for DIGITAL SYNC	MAIN	0	0	SYNC 3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
	D1 CN4002	50	GB3	GREEN DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0
49		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
48		GA5	GREEN DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
47		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
46		GB2	GREEN DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
45		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
44		GA6	GREEN DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
43		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
42		GB1	GREEN DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
41		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
40		GA7	GREEN DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
39		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
38		GB0	GREEN DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
37		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
36		BA0	BLUE DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
35		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
34		RB7	RED DIGITAL (2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
33		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
32		BA1	BLUE DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
31		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
30		RB6	RED DIGITAL (2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
29		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
28		BA2	BLUE DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
27		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
26		RB5	RED DIGITAL (2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
25		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
24		BA3	BLUE DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
23		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
22		RB4	RED DIGITAL (2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
21		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
20		BA4	BLUE DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
19		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
18		RB3	RED DIGITAL (2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
17		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
16		BA5	BLUE DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
15		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
14		RB2	RED DIGITAL (2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
13		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
12		BA6	BLUE DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
11		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
10		RB1	RED DIGITAL (2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
9		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
8		BA7	BLUE DIGITAL(1,2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
7		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
6		RB0	RED DIGITAL (2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
5		GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
4		CLK	CLK	VIDEO SLOT I/F	0	3.3vac	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
3		DE	DE for SYSTEM SYNC	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
2		HD	HD for DIGITAL SYNC	VIDEO SLOT I/F	0	0	SYNC 3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
1		VD	VD for DIGITAL SYNC	VIDEO SLOT I/F	0	0	SYNC 3.3Vac	0	0	0	0	VIDEO SLOT I/F→MAIN
PS CN4001	1	V+12V	12V power supply for SLO circuits	VIDEO SLOT I/F	0	12	12	0	0	0	0	POWER→VIDEO SLOT I/F
	2	V+12V	12V power supply for SLO circuits	VIDEO SLOT I/F	0	12	12	0	0	0	0	POWER→VIDEO SLOT I/F
	3	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	4	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	5	V+16.5	16.5V power supply for SLO circuits	VIDEO SLOT I/F	0	16.5	16.5	0	0	0	0	POWER→VIDEO SLOT I/F
	6	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	7	V+3.3V	3.3V power supply for SLO circuits	VIDEO SLOT I/F	0	3.3	3.3	0	0	0	0	POWER→VIDEO SLOT I/F
	8	V+3.3V	3.3V power supply for SLO circuits	VIDEO SLOT I/F	0	3.3	3.3	0	0	0	0	POWER→VIDEO SLOT I/F

Name	Pin No.	Pin name	FuNon-connection termination	AC power ON (Power cord connected to the wal outlet) ★★	Basic operation(Numerical unit:Vdc, except for case whwn units are individually indicated)					AC Power OFF (Power cord pulled out of the wall outlet ★★	Signal direction (DR : Data Relay)	
					MAIN POWER "ON"★		Power management ★★★	Standby ★★★	Main power OFF ★★			
					No signal	With signal						
PS	9	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-	
	10	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-	
	11	V+3.3STB	3.3V power supply for SLOT STB circuits	VIDEO SLOT I/F	0	3.3	3.3	3.3	3.3	0	POWER→VIDEO SLOT I/F	
	12	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-	
	13	NC	Non-connection termial	VIDEO SLOT I/F	-	-	-	-	-	-	-	
	13	V+12V	12V power supply for SLOT circuits	PSU	0	12	12	0	0	0	POWER→VIDEO SLOT I/F	
	12	V+12V	12V power supply for SLOT circuits	PSU	0	12	12	0	0	0	POWER→VIDEO SLOT I/F	
	11	GND	GND	PSU	0	0	0	0	0	0	-	
	10	GND	GND	PSU	0	0	0	0	0	0	-	
	9	V+16.5V	16.5V power supply for SLOT circuits	PSU	0	16.5	16.5	0	0	0	POWER→VIDEO SLOT I/F	
	8	GND	GND	PSU	0	0	0	0	0	0	-	
	7	V+3.3V	3.3V power supply for SLOT circuits	PSU	0	3.3	3.3	0	0	0	POWER→VIDEO SLOT I/F	
	6	V+3.3V	3.3V power supply for SLOT circuits	PSU	0	3.3	3.3	0	0	0	POWER→VIDEO SLOT I/F	
	5	GND	GND	PSU	0	0	0	0	0	0	-	
	4	GND	GND	PSU	0	0	0	0	0	0	-	
	3	V+3.3STB	3.3V power supply for SLOT STB circuits	PSU	0	3.3	3.3	3.3	3.3	0	POWER→VIDEO SLOT I/F	
CN4006	2	GND	GND	PSU	0	0	0	0	0	0	-	
	1	NC	Non-connection terminal	PSU	-	-	-	-	-	-	-	
	1	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-	
	2	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-	
	3	Y(G)	GREEN(Y) for ANALOG(on Sync)	VIDEO SLOT I/F	0	0	Video signal 0.7~1.0Vp-p	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
	4	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-	
	5	B	BLUE(Cb or Pb) for ANALOG	VIDEO SLOT I/F	0	0	Video Signal 0.7Vp-p	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
	6	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-	
	7	R	RED(Cr or Pr) for ANALOG	VIDEO SLOT I/F	0	0	Video Signal 0.7Vp-p	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
	8	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-	
	9	HD_SA	HD for ANALOG SYNC	VIDEO SLOT I/F	0	0	SLOT SYNC HIGH MIN 2.4V, LOW MAX 0.9V	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
	10	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-	
	11	VD_SA	VD for ANALOG SYNC	VIDEO SLOT I/F	0	0	SLOT SYNC HIGH MIN 2.4V, LOW MAX 0.9V	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
	12	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-	
	13	AUDIO_L	AUDIO L ch	VIDEO SLOT I/F	0	0	SLOT AUDIO	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
	14	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-	
	15	AUDIO_R	AUDIO R ch	VIDEO SLOT I/F	0	0	SLOT AUDIO	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
	16	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	-	
	17	SLOT_ST1	CARD TYPE SELECT	VIDEO SLOT I/F	0	When equipped with PDA-5003, 0V. When equipped with PDA-5004 0.36Vdc	When equipped with PDA-5003, 0V. When equipped with PDA-5004 0.36Vdc	When equipped with PDA-5003, 0V. When equipped with PDA-5004 0.36Vdc	When equipped with PDA-5003, 0V. When equipped with PDA-5004 0.36Vdc	0	0	VIDEO CARD→VIDEO SLOT I/F
	18	S_DIN_SEL	Digital INPUT SELECTOR	VIDEO SLOT I/F	0	SLOT digital ON 0V, SLOT digital OFF 3.3Vdc	SLOT digital ON 0V, SLOT digital OFF 3.3Vdc	SLOT digital ON 0V, SLOT digital OFF 3.3Vdc	SLOT digital ON 0V, SLOT digital OFF 3.3Vdc	0	0	VIDEO SLOT I/F→VIDEO CARD
	19	FNC1	FUNCTION LOGIC	VIDEO SLOT I/F	0	INPUT3,5 select 5Vdc, INPUT4 select 0V	INPUT3,5 select 5Vdc, INPUT4 select 0V	INPUT3,5 select 5Vdc, INPUT4 select 0V	INPUT3,5 select 5Vdc, INPUT4 select 0V	0	0	VIDEO SLOT I/F→VIDEO CARD
	20	FNC0	FUNCTION LOGIC	VIDEO SLOT I/F	0	INPUT4,5 select 5Vdc, INPUT3 select 0V	INPUT4,5 select 5Vdc, INPUT3 select 0V	INPUT4,5 select 5Vdc, INPUT3 select 0V	INPUT4,5 select 5Vdc, INPUT3 select 0V	0	0	VIDEO SLOT I/F→VIDEO CARD
	21	V+3.3V	VCC+3.3V(MAX 1.35A)	VIDEO SLOT I/F	0	3.3	3.3	0	0	0	0	VIDEO SLOT I/F→VIDEO CARD
	22	V+3.3V	VCC+3.3V(MAX 1.35A)	VIDEO SLOT I/F	0	3.3	3.3	0	0	0	0	VIDEO SLOT I/F→VIDEO CARD
	23	VD_DET	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-
	24	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	25	HD_DET	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-
	26	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	27	VD	VD for DIGITAL SYNC	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	28	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	29	HD	HD for DIGITAL SYNC	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	30	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
31	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
32	RB0	RED DIGITAL (2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
33	RB1	RED DIGITAL (2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
34	RB2	RED DIGITAL (2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
35	RB3	RED DIGITAL (2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
36	RB4	RED DIGITAL (2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
37	RB5	RED DIGITAL (2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
38	RB6	RED DIGITAL (2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
39	RB7	RED DIGITAL (2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
40	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
41	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
42	GB0	GREEN DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
43	GB1	GREEN DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
44	GB2	GREEN DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
45	GB3	GREEN DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
46	GB4	GREEN DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
47	GB5	GREEN DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
48	GB6	GREEN DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
49	GB7	GREEN DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
52	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
53	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
54	BB0	BLUE DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
55	BB1	BLUE DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
56	BB2	BLUE DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
57	BB3	BLUE DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
58	BB4	BLUE DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
59	BB5	BLUE DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
60	BB6	BLUE DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
61	BB7	BLUE DIGITAL(2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
62	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
65	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
66	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	

Name	Pin No.	Pin name	FuNon-connection termination	Basic operation(Numerical unit:Vdc, except for case when units are individually indicated)							AC Power OFF (Power cord pulled out of the wall outlet ★★)	Signal direction (DR : Data Relay)	
				AC power ON (Power cord connected to the wall outlet) ★★	MAIN POWER "ON" ★		Power management ★★★	Standby ★★★	Main power OFF ★★				
					No signal	With signal							
CN4006	67	KEY	K E Y SIGNAL	VIDEO SLOT I/F	-	0 clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	0	0	VIDEO SLOT I/F→VIDEO CARD	
	68	NC	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	
	69	TXD_CARD	UART chosen by GET_UART	VIDEO SLOT I/F	-	0 Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	0	0	VIDEO CARD→VIDEO SLOT I/F	
	70	RXD_CARD	UART chosen by GET_UART	VIDEO SLOT I/F	-	0 clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	0	0	VIDEO SLOT I/F→VIDEO CARD	
	71	INT_EXT	IF U / 232C SELECT	VIDEO SLOT I/F	-	0 0V : 232C CONNECTOR⇔ VIDEO CARD, 3.3Vdc : PDP⇔ VIDEO CARD	0V : 232C CONNECTOR⇔ VIDEO CARD, 3.3Vdc : PDP⇔ VIDEO CARD	0V : 232C CONNECTOR⇔ VIDEO CARD, 3.3Vdc : PDP⇔ VIDEO CARD	0V : 232C CONNECTOR⇔ VIDEO CARD, 3.3Vdc : PDP⇔ VIDEO CARD	0	0	VIDEO CARD→VIDEO SLOT I/F	
	72	NC	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	
	73	EMGREQ1_V	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	
	74	EMGREQ2_V	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	
	75	IC1V_OE	IC1 DIGITAL VIDEO CONTOROL	VIDEO SLOT I/F	-	0	3.3	3.3	0	0	0	0	-
	76	RESETX1	RESET	VIDEO SLOT I/F	-	0 RESET 0V, Release RESET 3.3Vdc	RESET 0V, Release RESET 3.3Vdc	RESET 0V, Release RESET 3.3Vdc	RESET 0V, Release RESET 3.3Vdc	0	0	VIDEO SLOT I/F→VIDEO CARD	
	77	NC	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	
	78	SD_SEL	DIGITAL SIGNAL FORMAT SELECT	VIDEO SLOT I/F	-	0 A/D Input Port, No VIDEO CARD 3.3Vdc	A/D Input Port, No VIDEO CARD 3.3Vdc	A/D Input Port, No VIDEO CARD 3.3Vdc	A/D Input Port, No VIDEO CARD 3.3Vdc	0	0	VIDEO CARD→VIDEO SLOT I/F	
	79	FNC2	FUNCTION LOGIC	VIDEO SLOT I/F	-	0 INPUT3 select 0Vdc, INPUT4.5 select 3.3Vdc	INPUT3 select 0Vdc, INPUT4.5 select 3.3Vdc	INPUT3 select 0Vdc, INPUT4.5 select 3.3Vdc	INPUT3 select 0Vdc, INPUT4.5 select 3.3Vdc	0	0	VIDEO SLOT I/F→VIDEO CARD	
	80	FNC3	FUNCTION LOGIC	VIDEO SLOT I/F	-	0 INPUT4 select 0Vdc, INPUT3.5 select 3.3Vdc	INPUT4 select 0Vdc, INPUT3.5 select 3.3Vdc	INPUT4 select 0Vdc, INPUT3.5 select 3.3Vdc	INPUT4 select 0Vdc, INPUT3.5 select 3.3Vdc	0	0	VIDEO SLOT I/F→VIDEO CARD	
	81	SOUND1	AUDIO SELECTOR	VIDEO SLOT I/F	-	0 INPUT4.5 Audio select 3.4Vdc	INPUT4.5 Audio select 3.4Vdc	INPUT4.5 Audio select 3.4Vdc	INPUT4.5 Audio select 3.4Vdc	0	0	VIDEO SLOT I/F→VIDEO CARD	
	82	GND	GND	VIDEO SLOT I/F	-	0	0	0	0	0	0	0	-
	83	DSUBR	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	-
	84	GND	GND	VIDEO SLOT I/F	-	0	0	0	0	0	0	0	-
	85	DSUBG	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	-
	86	GND	GND	VIDEO SLOT I/F	-	0	0	0	0	0	0	0	-
	87	DSUBB	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	-
	88	GND	GND	VIDEO SLOT I/F	-	0	0	0	0	0	0	0	-
	89	INS_HD	INPUT5 SYNC	VIDEO SLOT I/F	-	INPUT5 SYNC 0	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	VIDEO CARD→VIDEO SLOT I/F
	90	SOUSA_X	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	-
	91	GPC1	VIDEO CARD⇔COMM CARD LINE	VIDEO SLOT I/F	-	0	0	0	0	0	0	0	VIDEO CARD⇔VIDEO SLOT I/F
	92	GPC2	VIDEO CARD⇔COMM CARD LINE	VIDEO SLOT I/F	-	0	0	0	0	0	0	0	VIDEO CARD⇔VIDEO SLOT I/F
	93	GPC5	VIDEO CARD⇔COMM CARD LINE	VIDEO SLOT I/F	-	0	0	0	0	0	0	0	VIDEO CARD⇔VIDEO SLOT I/F
94	VYOB1	RESERVE	VIDEO SLOT I/F	-	0	3.3	3.3	3.3	3.3	0	0	VIDEO CARD⇔VIDEO SLOT I/F	
95	VYOB2	NC	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	-	
96	DSUBSW_DET	INPUT1⇔VIDEO CARD ANALOG OUT SELECT	VIDEO SLOT I/F	-	0 3.3Vdc : INPUT1 select, 0V : VIDEO CARD select	3.3Vdc : INPUT1 select, 0V : VIDEO CARD select	3.3Vdc : INPUT1 select, 0V : VIDEO CARD select	3.3Vdc : INPUT1 select, 0V : VIDEO CARD select	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
101	GND	GND	VIDEO SLOT I/F	-	0	0	0	0	0	0	0	-	
102	GND	GND	VIDEO SLOT I/F	-	0	0	0	0	0	0	0	-	
103	GND	GND	VIDEO SLOT I/F	-	0	0	0	0	0	0	0	-	
104	SCL_VS	Clock line of the I2C bus	VIDEO SLOT I/F	-	0 Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	0	0	0	0	0	MAIN→VIDEO SLOT I/F	
105	GND	GND	VIDEO SLOT I/F	-	0	0	0	0	0	0	0	-	
106	SDA_VS	Data line of the I2C bus	VIDEO SLOT I/F	-	0 During data exchange: Clock signal (3.3Vac), data not exchanged: 3.3Vdc	During data exchange: Clock signal (3.3Vac), data not exchanged: 3.3Vdc	0	0	0	0	0	MAIN→VIDEO SLOT I/F	
107	GND	GND	VIDEO SLOT I/F	-	0	0	0	0	0	0	0	-	
108	GND	GND	VIDEO SLOT I/F	-	0	0	0	0	0	0	0	-	
109	GND	GND	VIDEO SLOT I/F	-	0	0	0	0	0	0	0	-	
110	V+12V	VCC+12V(MAX 830mA)	VIDEO SLOT I/F	-	0	12	12	0	0	0	0	VIDEO SLOT I/F→VIDEO CARD	
111	GND	GND	VIDEO SLOT I/F	-	0	0	0	0	0	0	0	-	
112	V+12V	VCC+12V(MAX 830mA)	VIDEO SLOT I/F	-	0	12	12	0	0	0	0	VIDEO SLOT I/F→VIDEO CARD	
113	GND	GND	VIDEO SLOT I/F	-	0	0	0	0	0	0	0	-	
114	V+3.3STB	0.1A	VIDEO SLOT I/F	-	0	3.3	3.3	3.3	3.3	0	0	VIDEO SLOT I/F→VIDEO CARD	
115	V+13.5	VCC+13.5V(MAX 220mA)	VIDEO SLOT I/F	-	0	13.5	13.5	0	0	0	0	VIDEO SLOT I/F→VIDEO CARD	
116	V+13.5	VCC+13.5V(MAX 220mA)	VIDEO SLOT I/F	-	0	13.5	13.5	0	0	0	0	VIDEO SLOT I/F→VIDEO CARD	
117	IN4_DET	INPUT4 SIGNAL DETECT for AUTO POWER OFF	VIDEO SLOT I/F	-	0 When INPUT4 signal is inputted, 0V. When INPUT4 signal is not inputted, 5Vdc	When INPUT4 signal is inputted, 0V. When INPUT4 signal is not inputted, 5Vdc	0	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
118	IN3_DET	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	-	

Name	Pin No.	Pin name	FuNon-connection termination	Basic operation(Numerical unit:Vdc, except for case when units are individually indicated)							Signal direction (DR : Data Relay)	
				AC power ON (Power cord connected to the wall outlet) ★★	MAIN POWER "ON"★		Power management ★★★	Standby ★★★	Main power OFF ★★	AC Power OFF (Power cord pulled out of the wall outlet) ★★		
					No signal	With signal						
CN4006	119	SLOT_ST2	CARD DETECT for OEM/PIONEER	VIDEO SLOT I/F	0	PIONEER CARD : 3Vdc, OEM CARD : 0V	PIONEER CARD : 3Vdc, OEM CARD : 0V	PIONEER CARD : 3Vdc, OEM CARD : 0V	PIONEER CARD : 3Vdc, OEM CARD : 0V	0	0	VIDEO CARD→VIDEO SLOT I/F
	120	IR	INFRARED REMOTE CONTROL DATA	VIDEO SLOT I/F	0	Clock signal (4.4Vac) when data are received; 4.4Vdc when no data are received.	Clock signal (4.4Vac) when data are received; 4.4Vdc when no data are received.	Clock signal (4.4Vac) when data are received; 4.4Vdc when no data are received.	Clock signal (4.4Vac) when data are received; 4.4Vdc when no data are received.	0	0	VIDEO SLOT I/F→VIDEO CARD
	121	NC	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-
	122	NC	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-
	123	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	124	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	125	3G4G	3G4G DISCERNMENT	VIDEO SLOT I/F	0	When equipped with 3G CARD, 0V. When equipped with 4G CARD, 3.3Vdc	When equipped with 3G CARD, 0V. When equipped with 4G CARD, 3.3Vdc	When equipped with 3G CARD, 0V. When equipped with 4G CARD, 3.3Vdc	When equipped with 3G CARD, 0V. When equipped with 4G CARD, 3.3Vdc	0	0	VIDEO CARD→VIDEO SLOT I/F
	126	INS_DET	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-
	127	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	128	DE	DE for SYSTEM SYNC	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	129	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	130	CLK	CLK	VIDEO SLOT I/F	0	3.3Vac	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	131	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	132	BA7	BLUE DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	133	BA6	BLUE DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	134	BA5	BLUE DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	135	BA4	BLUE DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	136	BA3	BLUE DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	137	BA2	BLUE DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	138	BA1	BLUE DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	139	BA0	BLUE DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	140	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	141	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	142	GA7	GREEN DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	143	GA6	GREEN DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	144	GA5	GREEN DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	145	GA4	GREEN DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	146	GA3	GREEN DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	147	GA2	GREEN DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	148	GA1	GREEN DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	149	GA0	GREEN DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	152	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	153	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-
	154	RA7	RED DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	155	RA6	RED DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	156	RA5	RED DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	157	RA4	RED DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	158	RA3	RED DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	159	RA2	RED DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	160	RA1	RED DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
161	RA0	RED DIGITAL(1.2ch)	VIDEO SLOT I/F	0	0	3.3Vac	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
162	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
165	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
166	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
167	VSEPSCL	Clock line of the I2C bus	VIDEO SLOT I/F	0	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	Clock signal used during data transmission(3.3 Vac), 3.3Vdc when no data are transmitted	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F	
168	VSEPSDA	Data line of the I2C bus	VIDEO SLOT I/F	0	During data exchange: Clock signal (3.3Vac), data not exchanged: 3.3Vdc	During data exchange: Clock signal (3.3Vac), data not exchanged: 3.3Vdc	0	0	0	0	VIDEO CARD↔VIDEO SLOT I/F	
169	NC	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	
170	GET_UART	U-ART PROCESS SELECT	VIDEO SLOT I/F	0	3.3Vdc : 232C Connector↔ PDP, 0V : 232C Connector↔ VIDEO CARD, PDP↔ VIDEO CARD	3.3Vdc : 232C Connector↔ PDP, 0V : 232C Connector↔ VIDEO CARD	3.3Vdc : 232C Connector↔ PDP, 0V : 232C Connector↔ VIDEO CARD	3.3Vdc : 232C Connector↔ PDP, 0V : 232C Connector↔ VIDEO CARD	0	0	VIDEO CARD→VIDEO SLOT I/F	
171	FIRST_RXD	RXD Direct to 232C	VIDEO SLOT I/F	0	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	clock signal used during data received (3.3Vac), 3.3Vdc when no data are received.	0	0	VIDEO SLOT I/F→VIDEO CARD	
172	NC	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	
173	EMGREQ1 S	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	
174	EMGREQ2 S	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	
175	IC1S_OE	IC1 DIGITAL VIDEO CONTOROL	VIDEO SLOT I/F	0	3.3Vdc	3.3Vdc	0	0	0	0	VIDEO SLOT I/F→VIDEO CARD	
176	NC	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	
177	NC	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	
178	NC	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	
179	SLOT_ST3	CARD TYPE SELECT	VIDEO SLOT I/F	0	A/D Input Port, No VIDEO CARD 3.3Vdc	A/D Input Port, No VIDEO CARD 3.3Vdc	A/D Input Port, No VIDEO CARD 3.3Vdc	A/D Input Port, No VIDEO CARD 3.3Vdc	0	0	VIDEO CARD→VIDEO SLOT I/F	
180	M_CHOICE	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	
181	SOUND2	AUDIO SELECTOR	VIDEO SLOT I/F	0	INPUT3.5 Audio select 3.4Vdc	INPUT3.5 Audio select 3.4Vdc	INPUT3.5 Audio select 3.4Vdc	0	0	0	VIDEO SLOT I/F→VIDEO CARD	
182	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
183	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
184	DSUBH	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	
185	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
186	DSUBV	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	
187	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
188	GND	GND	VIDEO SLOT I/F	0	0	0	0	0	0	0	-	
189	INS_VD	INPUT5 SYNC	VIDEO SLOT I/F	INPUT5 SYNC	0	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	INPUT5 SYNC	VIDEO CARD→VIDEO SLOT I/F	

A

Name	Pin No.	Pin name	FuNon-connection termination	Basic operation(Numerical unit:Vdc, except for case whwn units are individually indicated)										Signal direction (DR : Data Relay)
				AC power ON (Power coad connected to the wal outlet) ★★	MAIN POWER "ON"★		Power management ★★★	Standby ★★★	Main power OFF ★★	AC Power OFF (Power cord pulled out of the wall outlet) ★★				
					No signal	With signal								
	190	HYOUJI_X	2 SCREENS Permit/Prohibit	VIDEO SLOT I/F	0	Permit 0Vdc, Prohibit 3.3Vdc	Permit 0Vdc, Prohibit 3.3Vdc	Permit 0Vdc, Prohibit 3.3Vdc	Permit 0Vdc, Prohibit 3.3Vdc	0	0	0	0	VIDEO CARD→VIDEO SLOT I/F
	191	GPC3	VIDEO CARD⇄COMM CARD LINE	VIDEO SLOT I/F	0	0	0	0	0	0	0	0	0	VIDEO CARD⇄VIDEO SLOT I/F
	192	GPC4	VIDEO CARD⇄COMM CARD LINE	VIDEO SLOT I/F	0	0	0	0	0	0	0	0	0	VIDEO CARD⇄VIDEO SLOT I/F
	193	NC	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	-	-
	194	VYOBI4	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	-	-
	195	VYOBI5	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	-	-
	196	VYOBI6	Non-connection terminal	VIDEO SLOT I/F	-	-	-	-	-	-	-	-	-	-

B

C

D

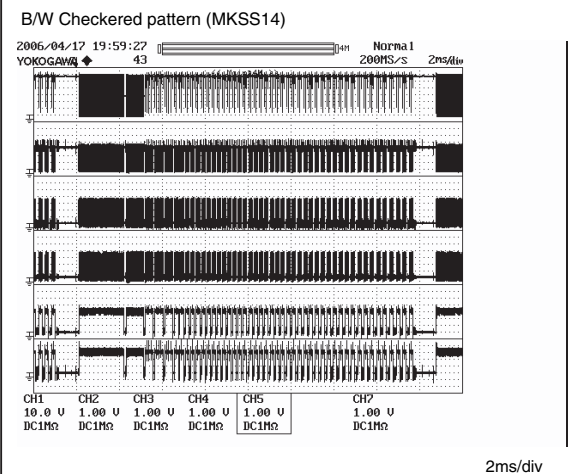
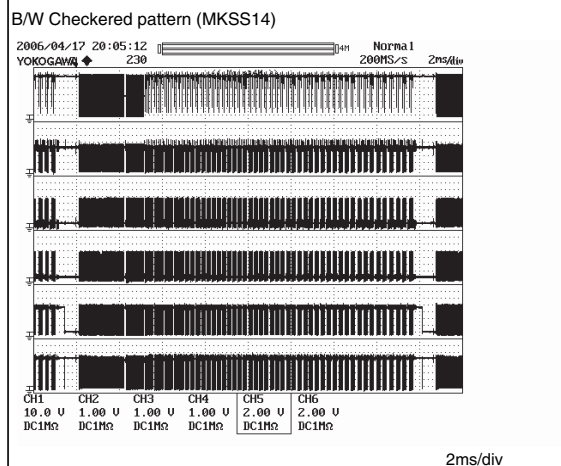
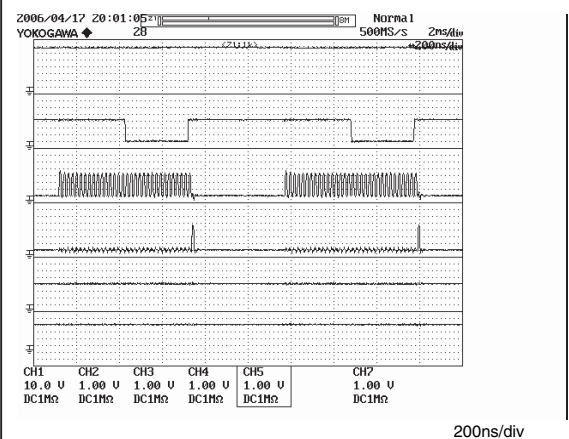
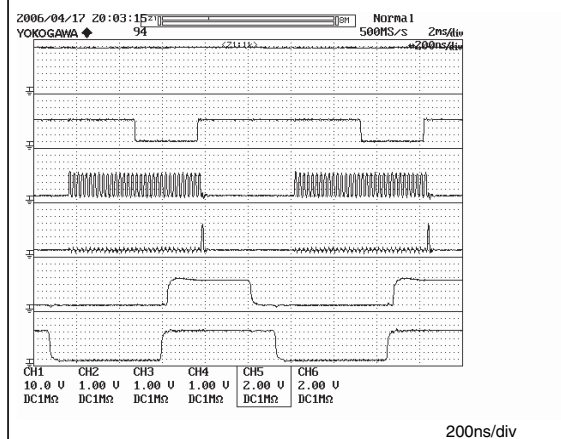
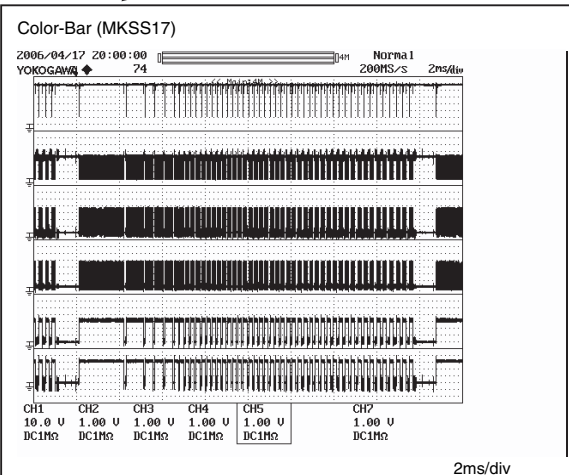
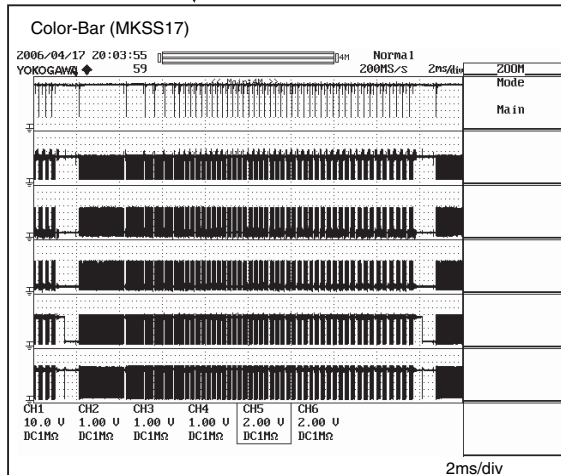
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4.18 WAVEFORMS

50 ADDRESS L Assy Waveform

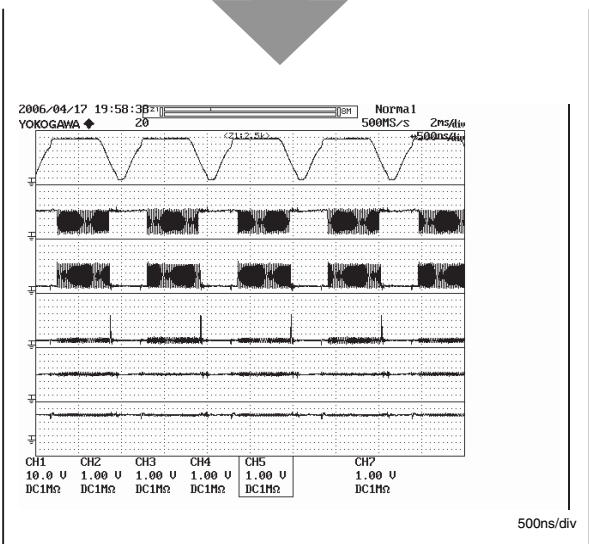
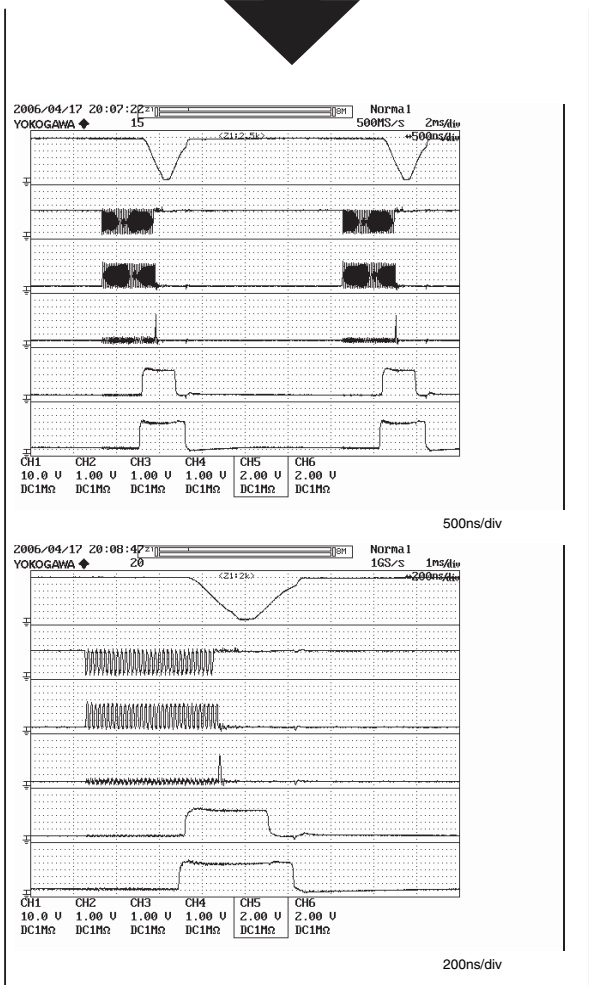
Measuring CH	Waveform	Measuring Point	Waveform	Measuring Point
① CH1	Resonance waveform (V+ADR)	L1730	Resonance waveform (V+ADR)	L1730
② CH2	R ch signal	R1608	R ch signal	R1608
③ CH3	CLK	R1637	CLK	R1637
④ CH4	LE	R1621	LE	R1621
⑤ CH5	ADR-D	R1720	HBLK	R1615
⑥ CH6	ADR-B	R1714	—	—
CH7	—	—	LBLK	R1616



A



B

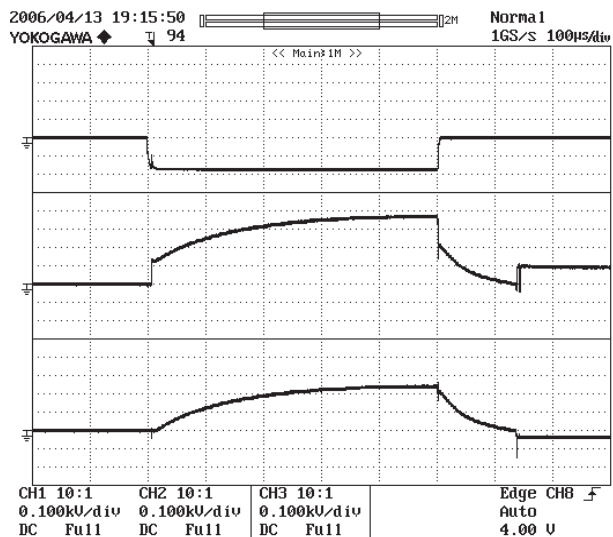


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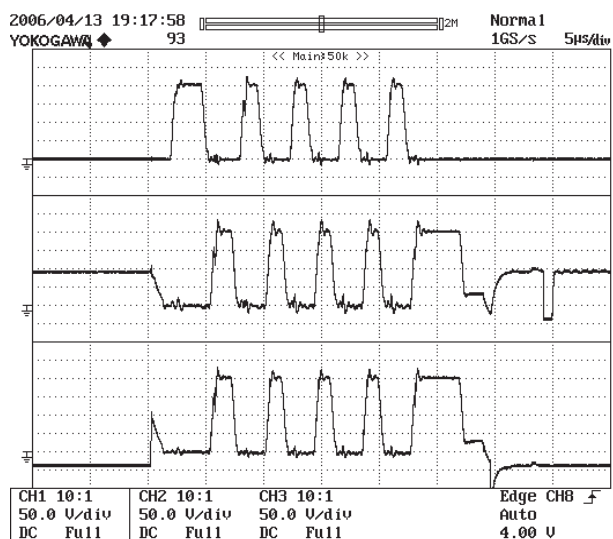
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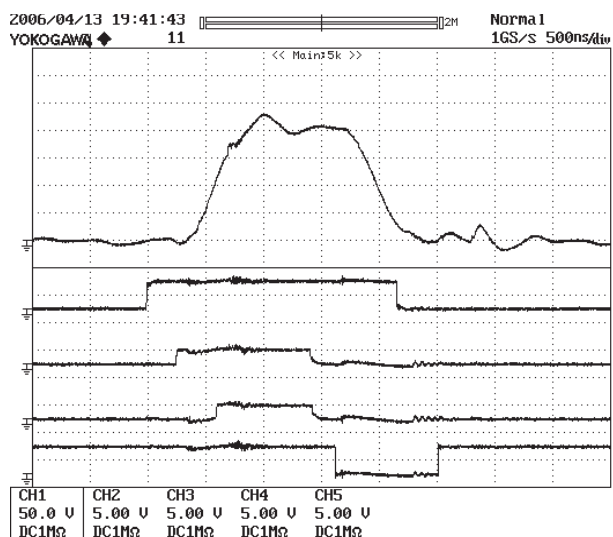
50 X/Y DRIVE Assy Waveform



- ⑨ CH1 R1248 (XPSUS) -K1202(SUSGND)
V:100 V/div H:100 µS/div
(X drive Assy)
- ⑩ CH2 K2901 (ScanOUT) -K2701(SUSGND)
V:100 V/div H:100 µS/div
(Y drive Assy)
- ⑪ CH3 F2207 (YPSUS) -K2203(SUSGND)
V:100 V/div H:100 µS/div
(Y drive Assy)



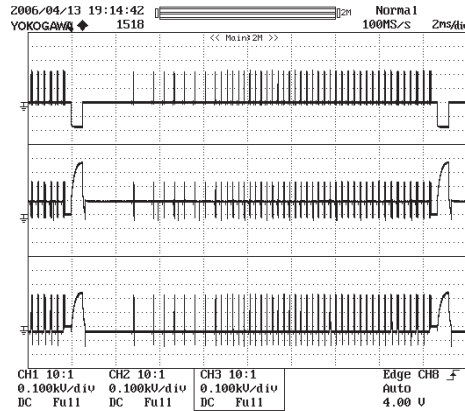
- ⑫ CH1 R1248 (XPSUS) -K1202(SUSGND)
V:50 V/div H:5 µS/div
(X drive Assy)
- ⑬ CH2 K2901 (ScanOUT) -K2701(SUSGND)
V:50 V/div H:5 µS/div
(Y drive Assy)
- ⑭ CH3 F2207 (YPSUS) -K2203(SUSGND)
V:50 V/div H:5 µS/div
(Y drive Assy)



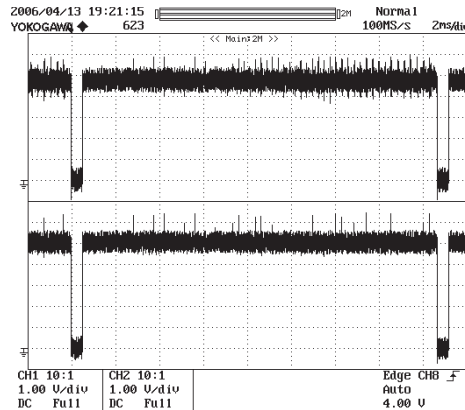
- ⑮ CH1 F2207 (YPSUS) -K2203(SUSGND)
V:100 V/div H:500 nS/div
(Y drive Assy)
- ⑯ CH2 K2021 (YSUS_G) -K2014(GND)
V:5 V/div H:500 nS/div
(Y drive Assy)
- ⑰ CH3 K2009 (YSUS_U) -K2014(GND)
V:5 V/div H:500 nS/div
(Y drive Assy)
- ⑱ CH4 K2013 (YSUS_B) -K2014(GND)
V:5 V/div H:500 nS/div
(Y drive Assy)
- ⑲ CH5 K2010 (YSUS_D) -K2014(GND)
V:5 V/div H:500 nS/div
(Y drive Assy)

50 X/Y DRIVE Assy Waveform

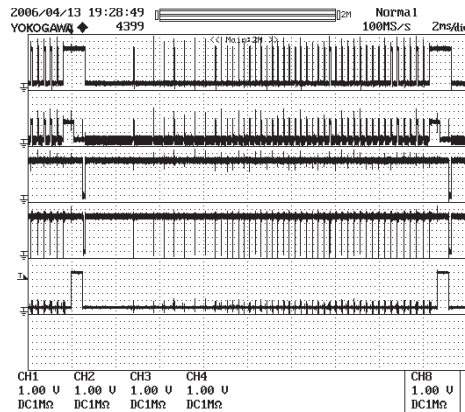
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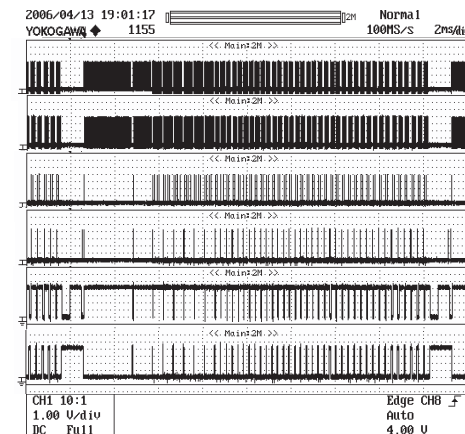
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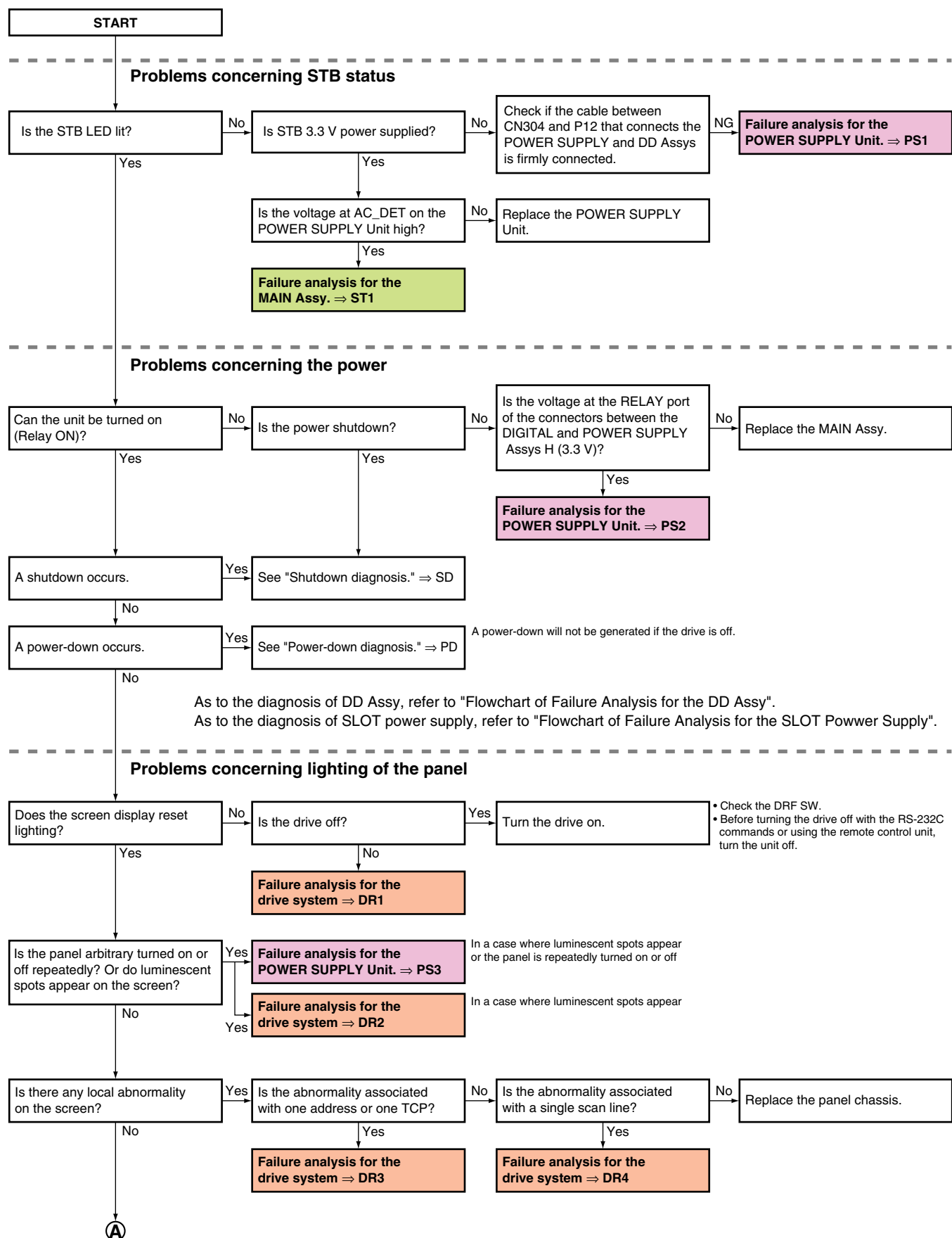
F

20	CH1	R1248 (XPSUS)	-K1202(SUSGND)
		V:100V/div	H:2mS/div
			(X drive Assy)
21	CH2	K2901 (ScanOUT)	-K2701(SUSGND)
		V:100V/div	H:2mS/div
			(Y drive Assy)
22	CH3	F2207 (YPSUS)	-K2203(SUSGND)
		V:100V/div	H:2mS/div
			(Y drive Assy)
23	CH1	K1013 (XSUS_MSK)	-K1004(GND)
		V:1V/div	H:2mS/div
			(X drive Assy)
24	CH2	K1007 (XNR-D)	-K1004(GND)
		V:1V/div	H:2mS/div
			(X drive Assy)
25	CH1	K2007 (YNOFS)	-K2014(GND)
		V:1V/div	H:2mS/div
			(Y drive Assy)
26	CH2	K2007 (YSUS_MSK)	-K2014(GND)
		V:1V/div	H:2mS/div
			(Y drive Assy)
27	CH3	K2008 (YNRST)	-K2014(GND)
		V:1V/div	H:2mS/div
			(Y drive Assy)
28	CH4	K2006 (SOFT-D)	-K2014(GND)
		V:1V/div	H:2mS/div
			(Y drive Assy)
29	CH5	K2011 (YPR-U)	-K2014(GND)
		V:1V/div	H:2mS/div
			(Y drive Assy)
30	CH1	IC2001 18(LE)	-K2014(GND)
		V:1V/div	H:2mS/div
			(Y drive Assy)
31	CH2	IC2001 17 (CLK)	-K2014(GND)
		V:1V/div	H:2mS/div
			(Y drive Assy)
32	CH3	IC2001 16 (SI_H)	-K2014(GND)
		V:1V/div	H:2mS/div
			(Y drive Assy)
33	CH4	IC2001 15 (CLR)	-K2014(GND)
		V:1V/div	H:2mS/div
			(Y drive Assy)
34	CH5	IC2001 14 (OC2)	-K2014(GND)
		V:1V/div	H:2mS/div
			(Y drive Assy)
35	CH5	IC2001 13 (OC1)	-K2014(GND)
		V:1V/div	H:2mS/div
			(Y drive Assy)

5. DIAGNOSIS INFORMATION

5.1 THE FLOW OF DIAGNOSIS

Flowchart of Failure Analysis for The Whole Unit



A

In the subsequent diagnostic steps, it is most likely that the multi base section is in failure.

Problems concerning video display

Is the panel mask properly displayed?

No

Failure analysis for the drive system ⇒ DR2

Yes

Check with the animated slanting ramp mask.

Is the on-screen display (OSD) properly displayed?

No

Failure analysis for the DIGITAL Assy ⇒ DG1

Yes

Check on the Factory menu.

Is an external video signal displayed properly?

No

Failure analysis for the MAIN Assy ⇒ MA1

Yes

Problems concerning the audio output

Is the audio signal output?

No

Failure analysis for the audio system ⇒ AU1

Yes

Do receive a key signal of a remote control unit ?

No

Failure analysis for the remote receiver unit ⇒ RM1

Yes

Specific failure whose cause is difficult to identify in the initial stage

Failure analysis for the MAIN Assy

Is the PC OUT signal output?

Yes

Failure analysis for the MAIN Assy ⇒ MA2

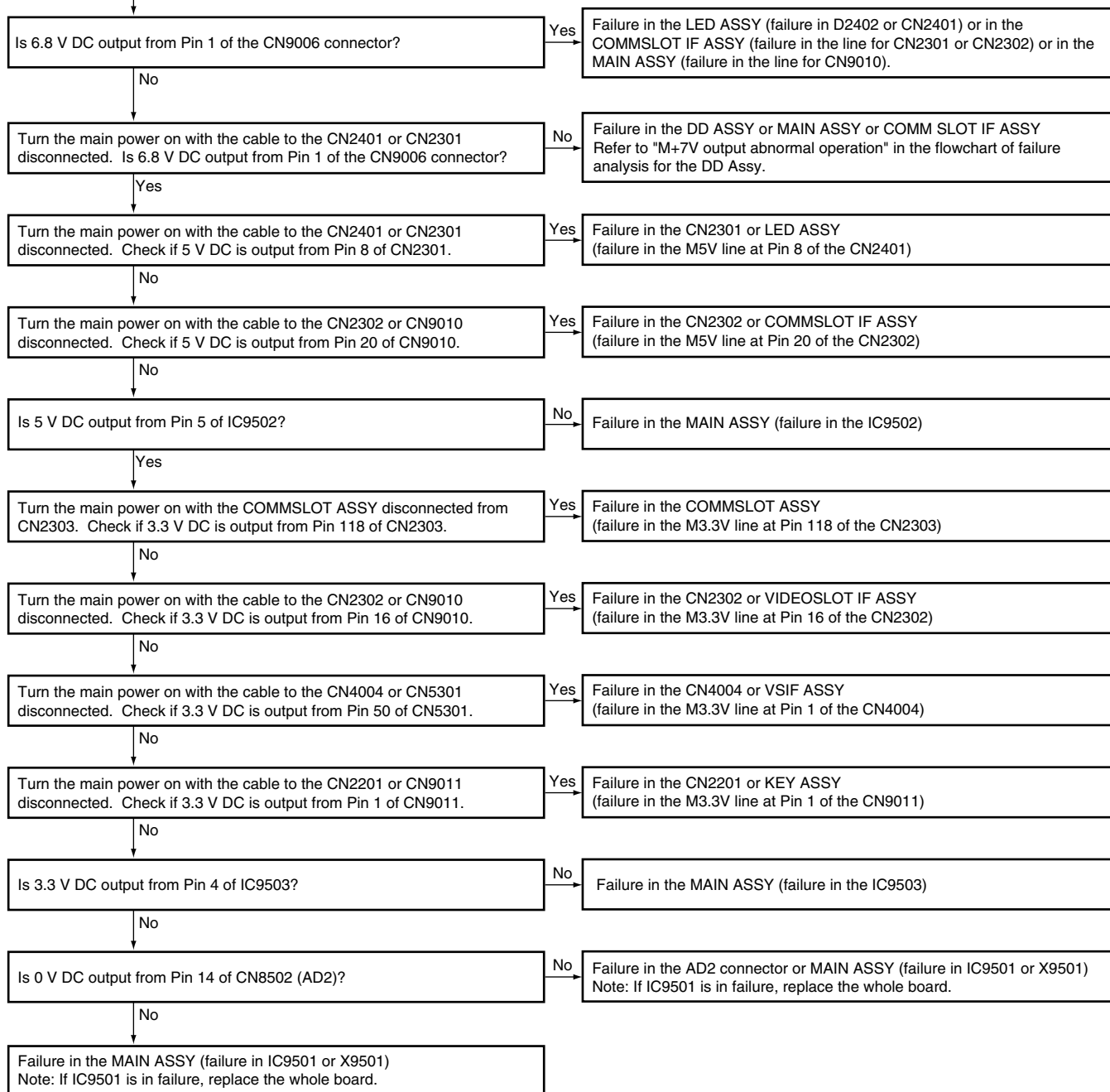
Is the AUDIO OUT signal output?

Yes

Failure analysis for the AUDIO OUT on the MAIN Assy. ⇒ AU2

Flowchart of Failure Analysis for STANDBY STATUS

Failure analysis for the MAIN Assy ⇒ ST1



Flowchart of Failure Analysis for The POWER SUPPLY Unit

A

Failure analysis for the POWER SUPPLY Unit. ⇒ PS1

STB 3.3 V power is not output.

Is the cable connected firmly to the P12 connector?

No

Properly connect the cable between the CN304 and P12 connectors.

Yes

Is the cable to the P12 connector broken?

Yes

Replace the P12 defective cable.

No

B

Is the fuse (F101) blown?

Yes

Replace the POWER SUPPLY Unit.

No

Is one of the limiting resistors (R104/R105) blown?

Yes

Replace the POWER SUPPLY Unit.

Check the resistance between L102 (lead nearest R104) and the D121 anode, using a tester.

No

The POWER SUPPLY Unit is normal.

C

Failure analysis for the POWER SUPPLY Unit. ⇒ PS2

The power is not on, even though the RELAY port is active.

Is the relay (RL102) on?

No

Replace the POWER SUPPLY Unit.

- Check the relay operation at the terminal (Pin 11 of P4). (Voltage: 3.3 V)
- Check the relay sound (click).

Yes

Is the PFC voltage normal?

No

Replace the POWER SUPPLY Unit.

- Check the voltage between the D204 cathode and RC101 (negative) terminal.
- The voltage must be around 390 V (failure if it is 340 V or less).

Caution: High voltage!

Yes

The POWER SUPPLY Unit is normal.

D

Failure analysis for the POWER SUPPLY Unit. ⇒ PS3

The cells of the panel do not light normally.

Is the VADR voltage within the specified values?

No

Replace the POWER SUPPLY Unit.

The specified voltage values are between 57 and 63 V.

Yes

Is there a fluctuation in the VADR voltage?

Yes

Replace the POWER SUPPLY Unit.

The ripple must be within 5 V.

No

Is the VSUS voltage within the specified range?

No

Replace the POWER SUPPLY Unit.

The specified voltage values are between 200 and 210 V (VSU: 125/35~C).

Yes

Is there a fluctuation in the VSUS voltage?

Yes

Replace the POWER SUPPLY Unit.

The ripple must be within 10 V.

No

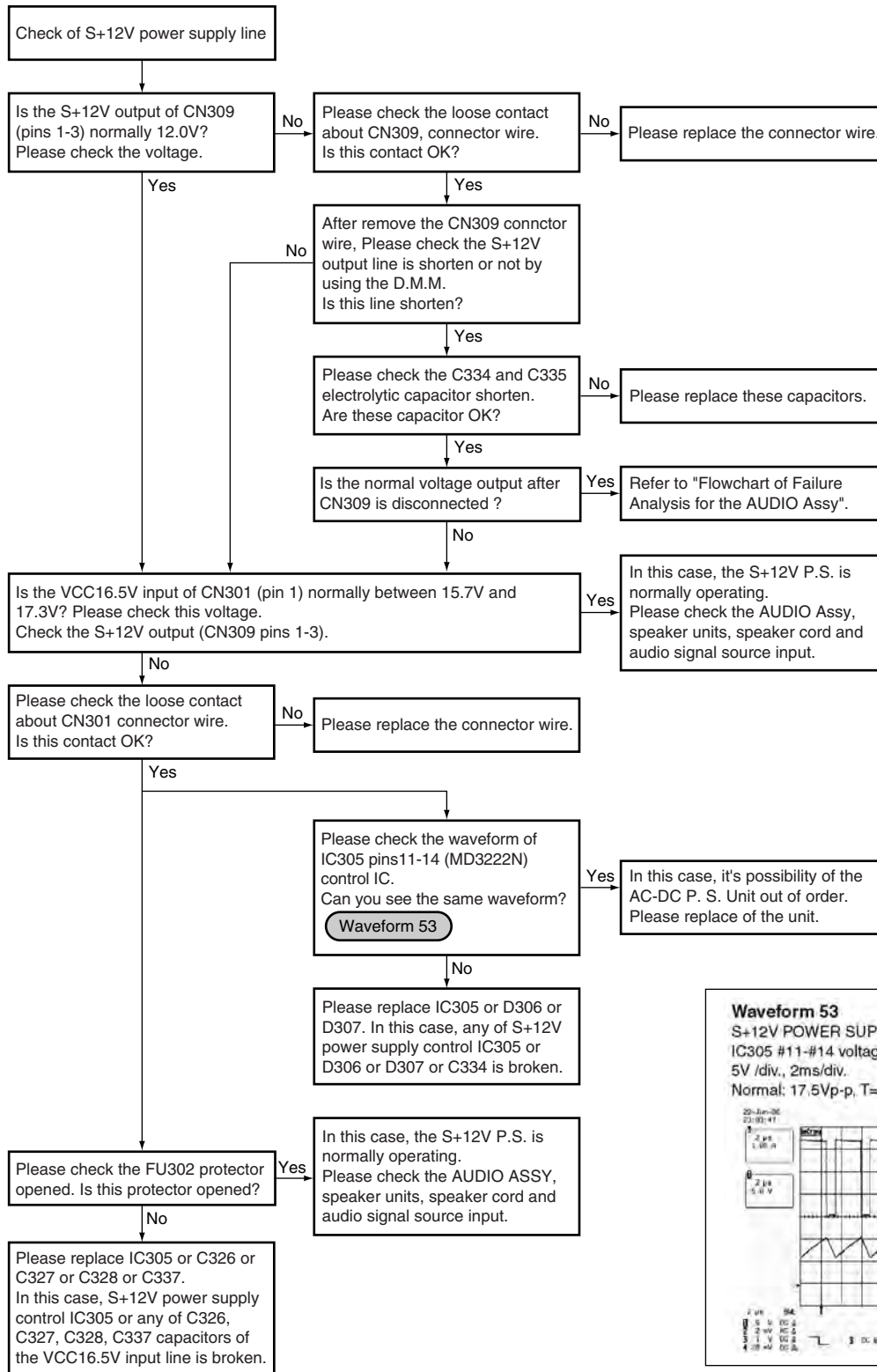
The POWER SUPPLY Unit is normal.

F

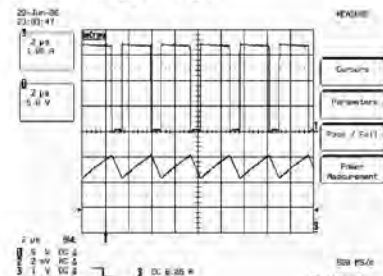
Flowchart of Failure Analysis for The DD Assy

Note: When you confirm the operation of the power supply supplied to MAIN ASSY and AUDIO ASSY, please follow the below procedure.
As to the relation between the state of the set and the voltage of each part, please refer to "4.17 CONNECTION PIN DESCRIPTION".

Troubleshooting of the S+12V output abnormal operation



Waveform 53
S+12V POWER SUPPLY (Upper side waveform)
IC305 #11-#14 voltage waveform.
5V/div., 2ms/div.
Normal: 17.5Vp-p, T=3.3μs



A

■ Troubleshooting of the M+7V output abnormal operation.

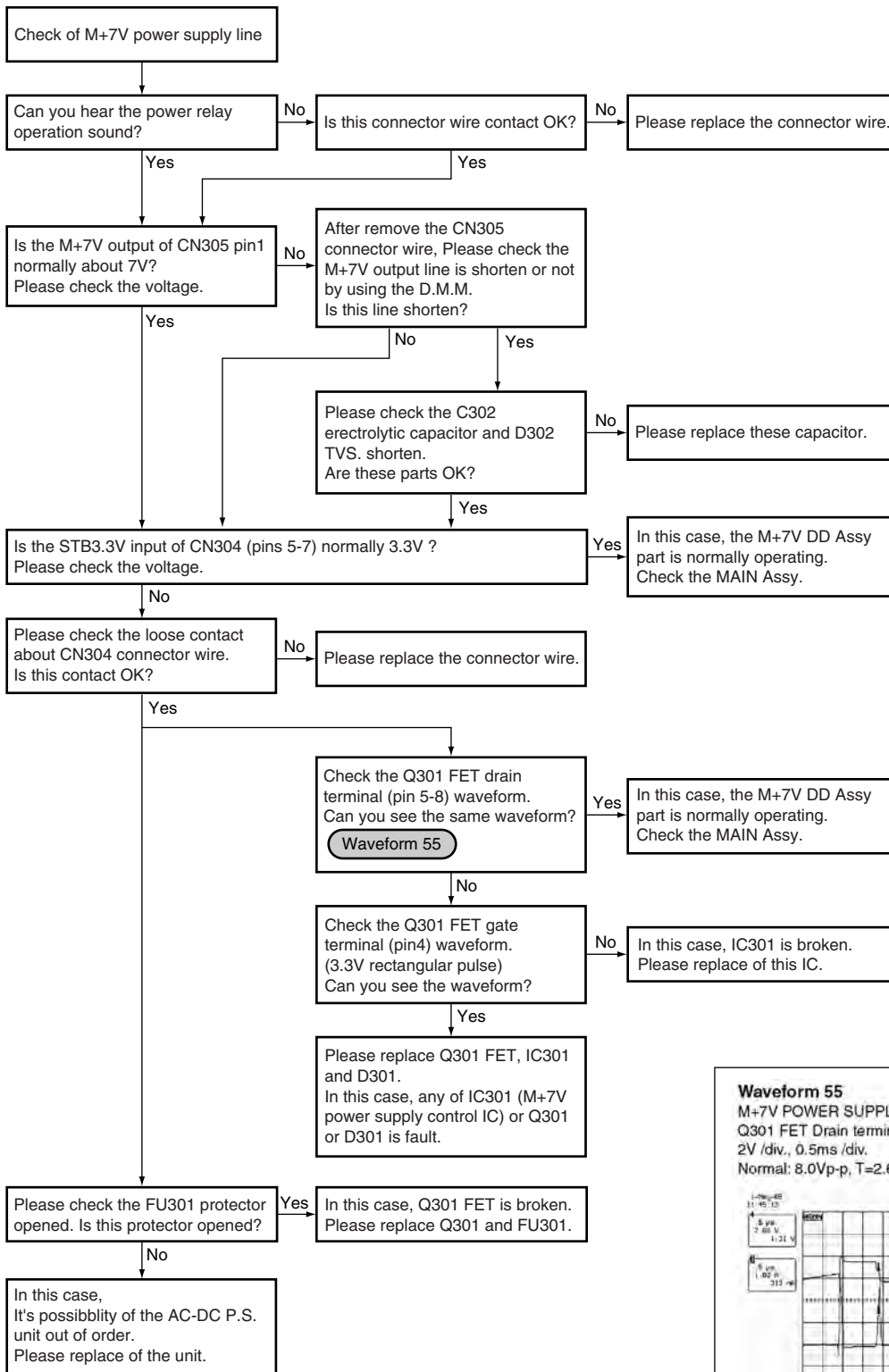
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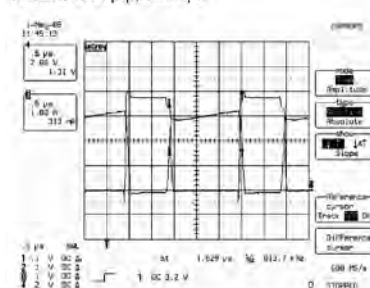


Waveform 55

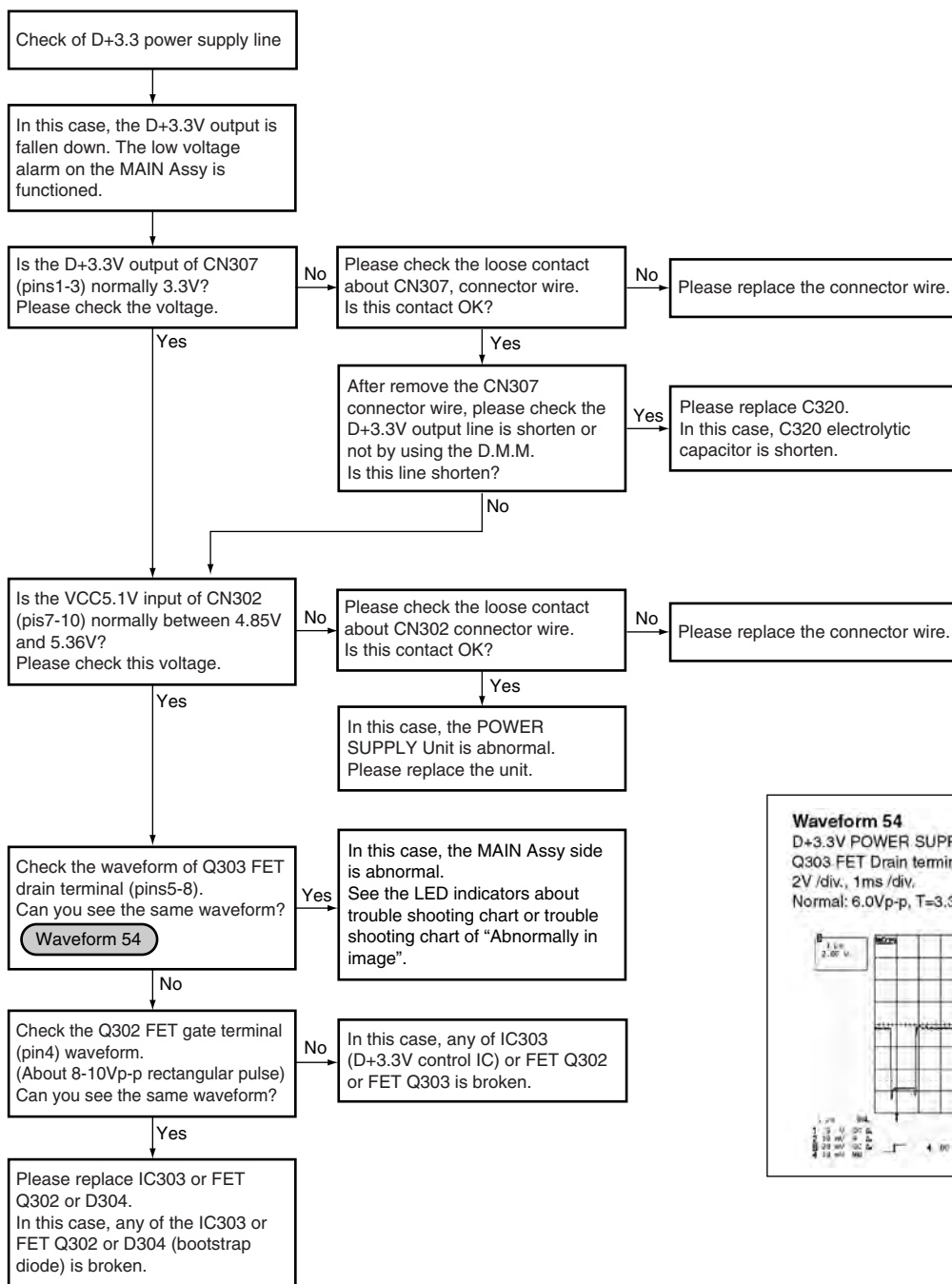
M+7V POWER SUPPLY

Q301 FET Drain terminal (#5-#8) voltage waveform.
2V /div., 0.5ms /div.

Normal: 8.0Vp-p, T=2.6μs

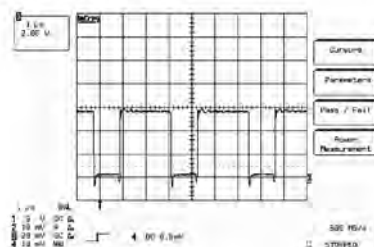


■ Troubleshooting of the D+3.3V output abnormal operation.



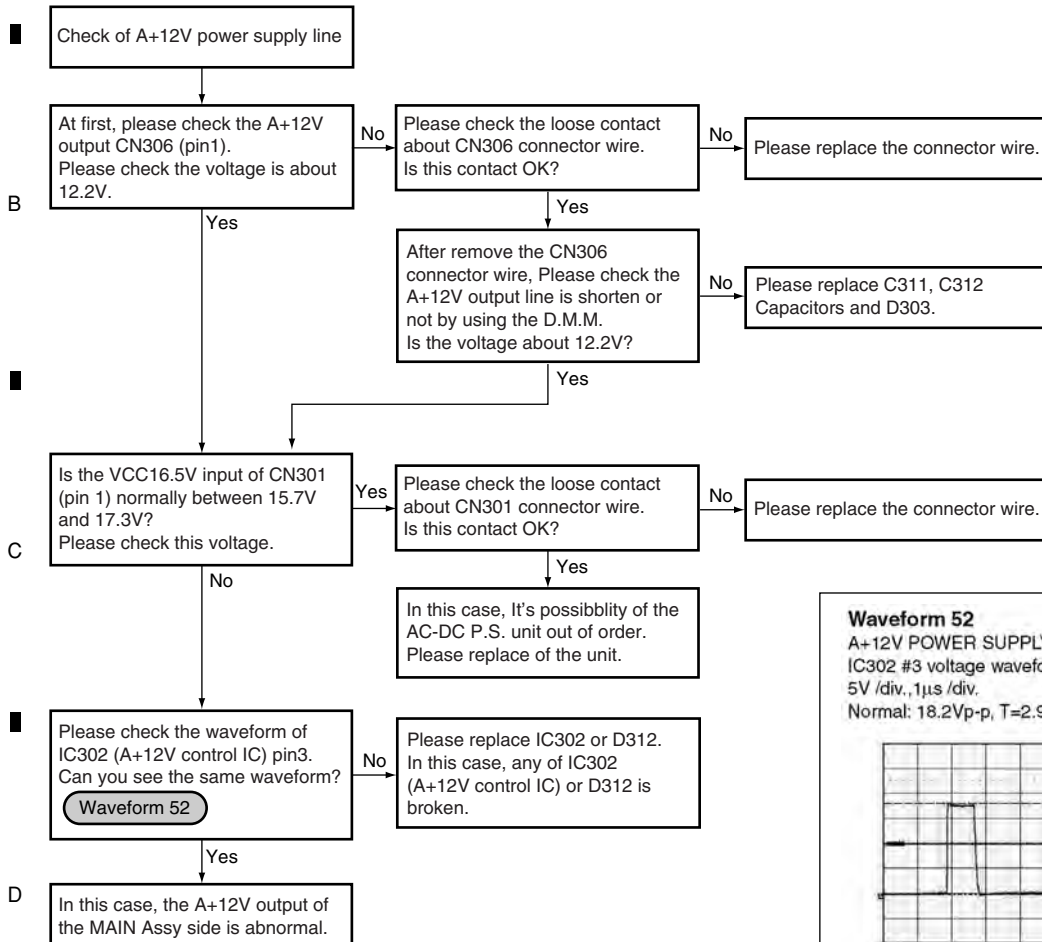
Waveform 54

D+3.3V POWER SUPPLY
Q303 FET Drain terminal (#5-#8) voltage waveform.
2V/div., 1ms/div.
Normal: 6.0Vp-p, T=3.3μs

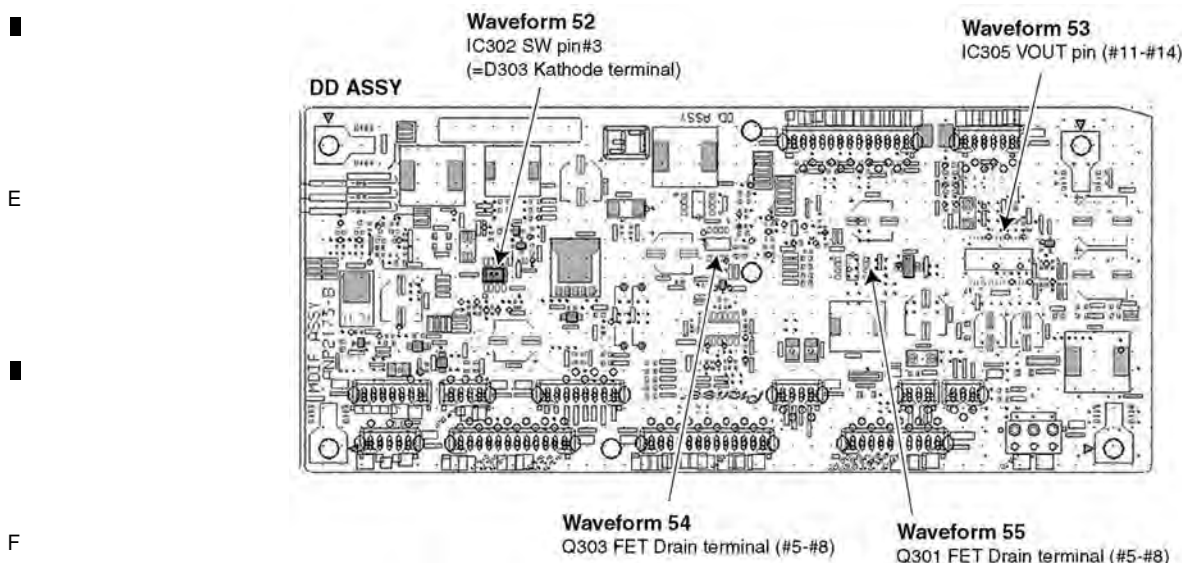
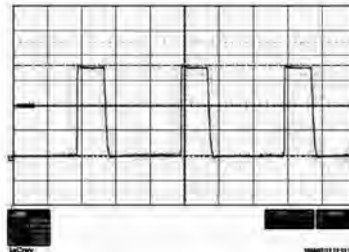


A ■ Troubleshooting of the A+12V output abnormal operation.

This voltage Line is supplied for the fan motors VCC voltage through the variable voltage regulator on the MAIN Assy.
The output voltage of the variable voltage regulator is DC11.6V or DC8.8V or DC6.0V.
And, no operation fan motors by acting fan alarm signal is not mentioned on this item.

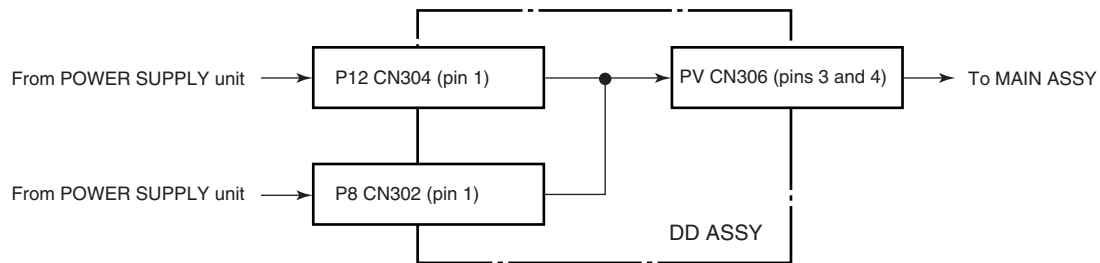


Waveform 52
A+12V POWER SUPPLY
IC302 #3 voltage waveform.
5V /div., 1μs /div.
Normal: 18.2Vp-p, T=2.95μs

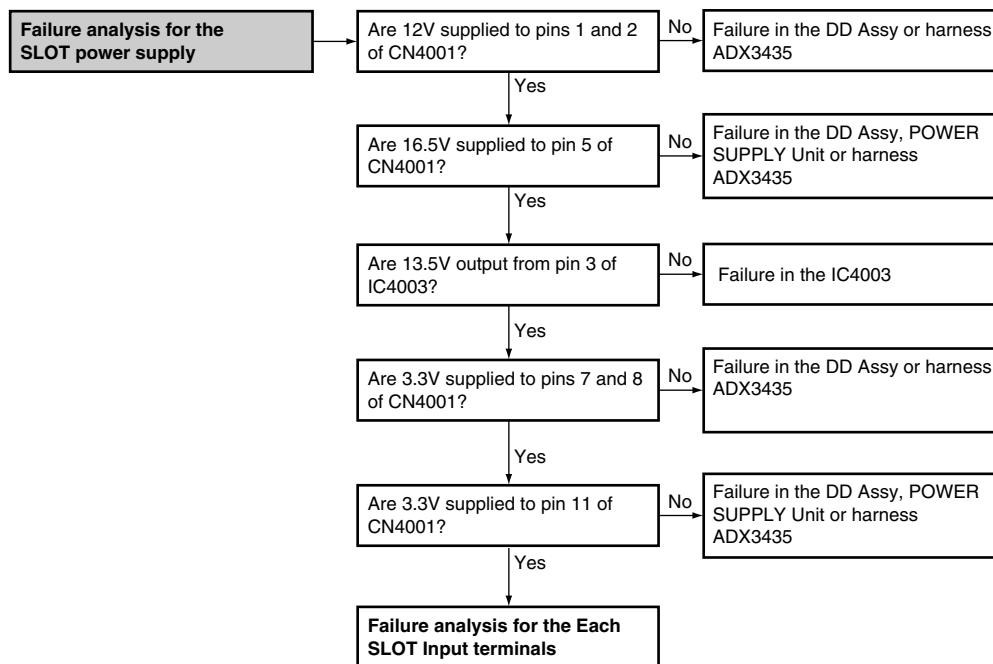


■ Trouble shooting of the A+6.5V output abnormal operation

This voltage Line is supplied to MAIN Assy from MAIN POWER SUPPLY Unit via DD Assy.
Please check board to board connection first if A+6.5V is abnormal.
e.g.) pin contact of connector, short between wire

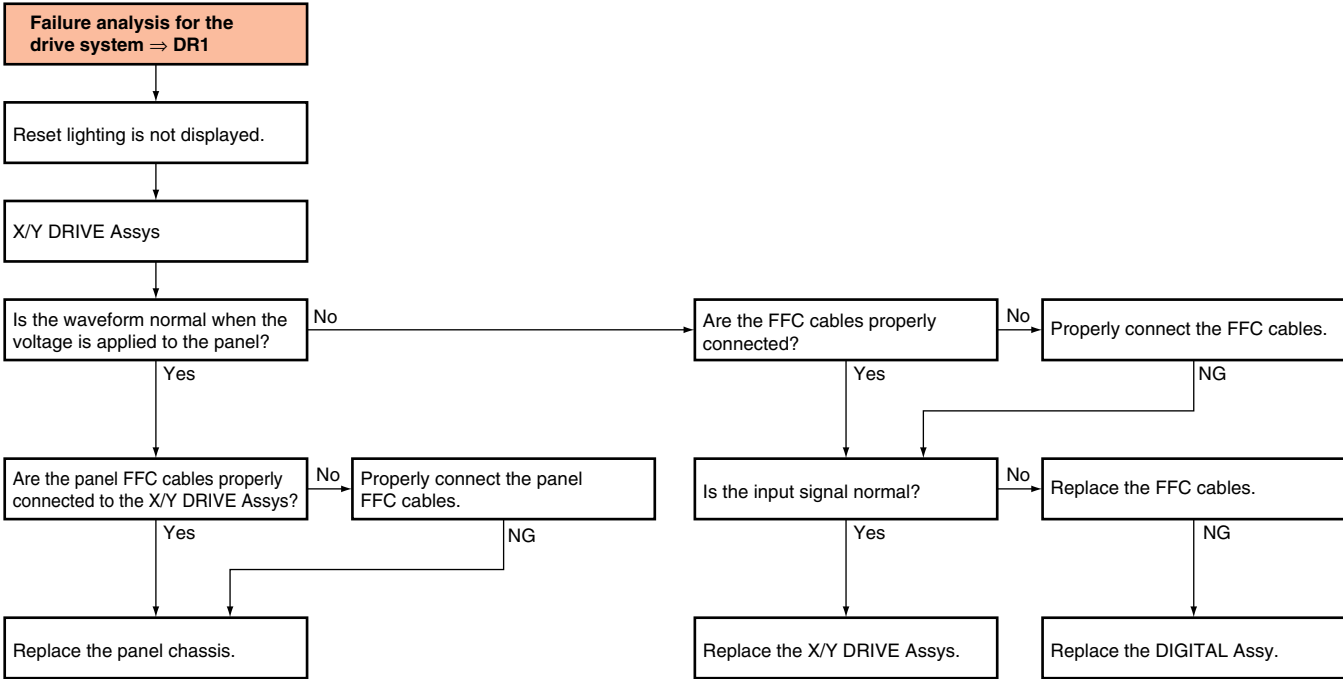


Flowchart of Failure Analysis for The SLOT Power Supply



Flowchart of Failure Analysis for The Drive System

A



C

D

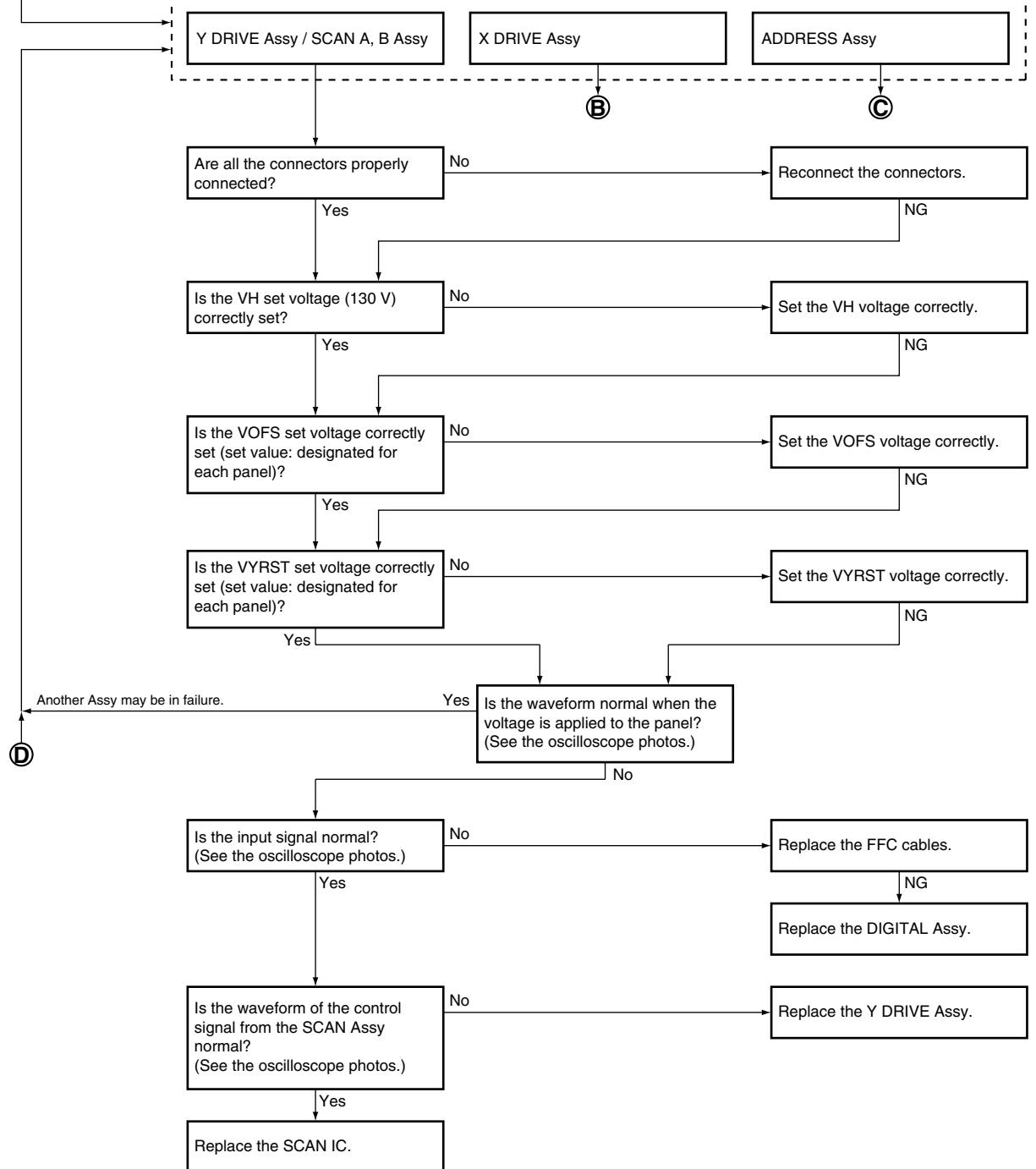
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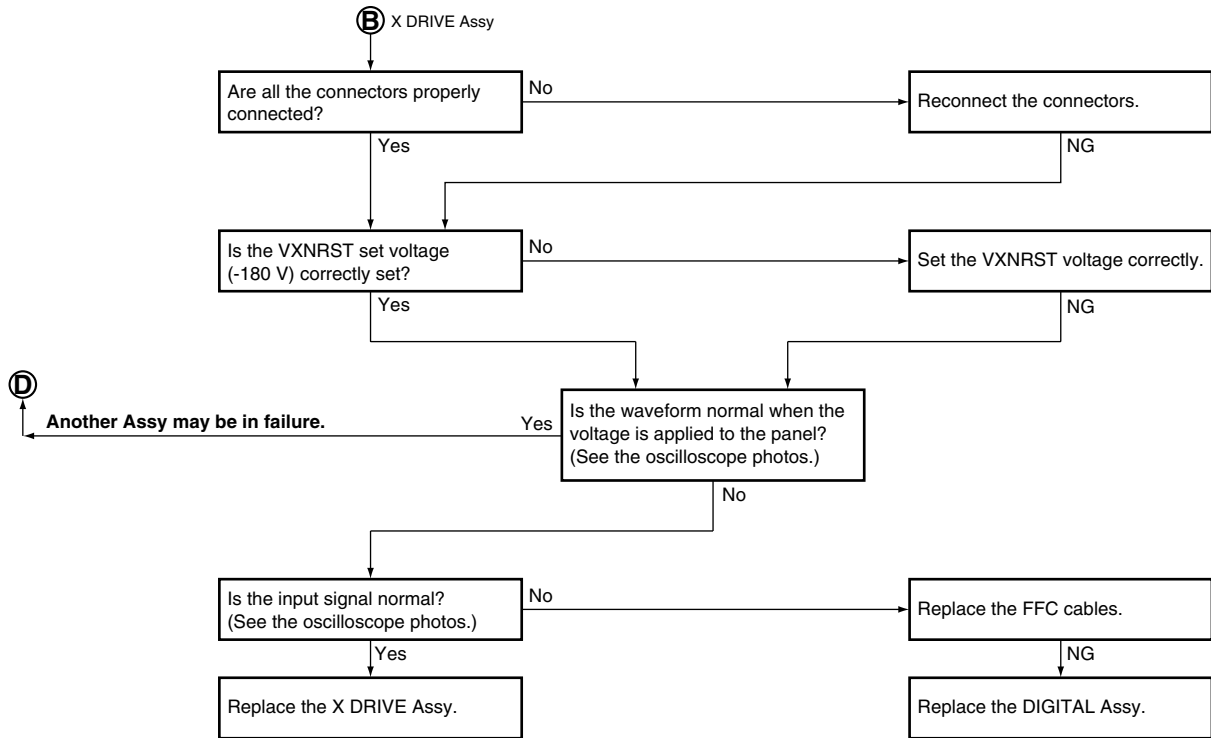
Failure analysis for the drive system ⇒ DR2

Abnormality across the whole screen, such as luminescent spots

Because it is difficult to identify which drive is in failure, follow the flowchart below to check each Assy.



A



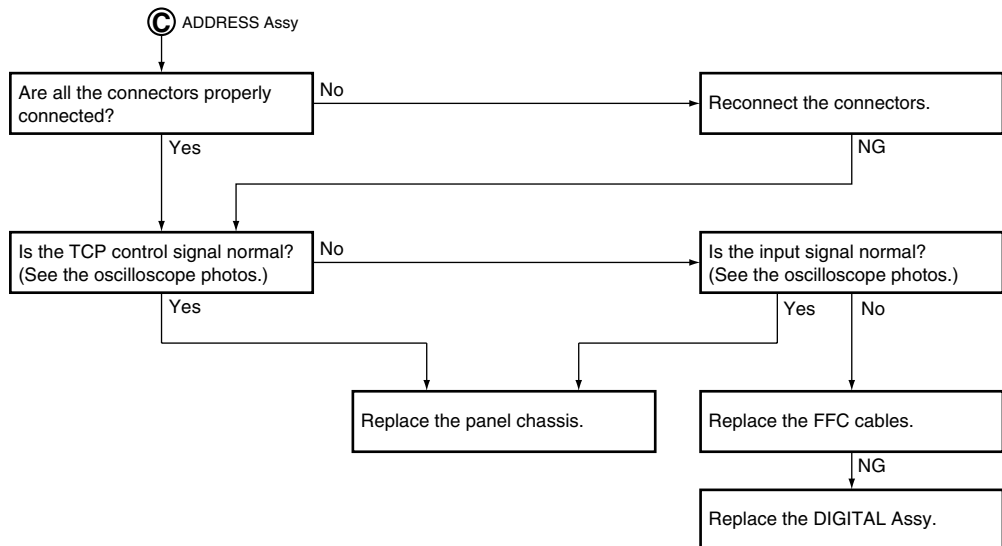
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Failure analysis for the drive system ⇒ DR3

The abnormality is associated with one address or one TCP?

Diagnose the ADDRESS Assy.

Is the TCP control signal normal?
(See the oscilloscope photos.)

No

Are the FFC cables properly connected?

No

Properly connect the FFC cables.

NG

Yes

Yes

Replace the panel chassis.

Replace the DIGITAL Assy.

NG

If the FFC cable that connects the DIGITAL and ADDRESS Assys is in failure, the abnormality is associated with one address in most cases.

In most cases of damage on one line, the panel chassis must be replaced.

Failure analysis for the drive system ⇒ DR4

The abnormality is associated with a single scan line.

Diagnose the SCAN A and B Assys.

Is the waveform normal when the voltage is applied to the panel?

No

Is the cable connected properly to the 15-pin connector?

No

Connect the cable properly.

NG

Yes

Yes

Is the waveform of the SCAN IC control signal from the Y DRIVE Assy normal?

No

Replace the Y DRIVE Assy.

Yes

Is the cable connected properly to the 90-pin connector?

No

Connect the cable properly.

NG

Care must be taken that no dirt or dust is attached or gets in. (the SCAN IC may be damaged.)

Yes

NG

Replace the SCAN Assy

Flowchart of Failure Analysis for The DIGITAL Assy

A

Failure analysis for the DIGITAL Assy ⇒ DG1

The on-screen display (OSD) is not properly indicated.

- If the OSD is not properly displayed although the panel mask is properly displayed, a failure exists in the path from the output of IC8201 on the MAIN Assy to IC3401 on the DIGITAL Assy.
→ If only the OSD is abnormal, the MAIN Assy is in failure.

Is V sync/H existence judgment detected by issuing the QSI command?

No

Failure analysis for the MAIN Assy. ⇒ MA1

Yes

B

Is the indication position correct?

No

It is most likely that the sync signal is abnormal.

Yes

Is the tone correct?

No

It is most likely that the video signal data are missing.

Yes

Failure analysis for the MAIN Assy. ⇒ MA1

C

Is the 50-pin FFC cable firmly connected?

No

Firmly connect the 50-pin FFC cable

When disconnecting the FFC cable, take care not to damage the CN3001 connector on the DIGITAL Assy, which can easily be damaged.

Yes

Is the 50-pin FFC cable broken?

Yes

Replace the 50-pin FFC cable

No

Is the FFC connector poorly contacted?

Yes

In a case of D11

Replace the DIGITAL Assy

In a case of AD3

Replace the LVDS Assy

No
DIGITAL : D11
LVDS : AD3

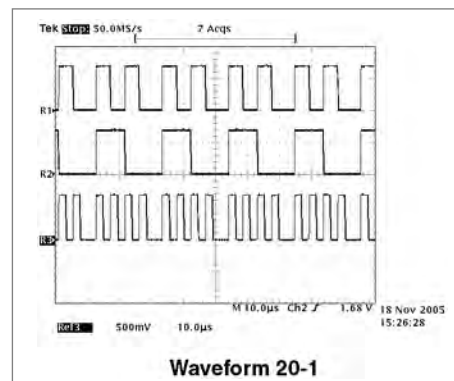
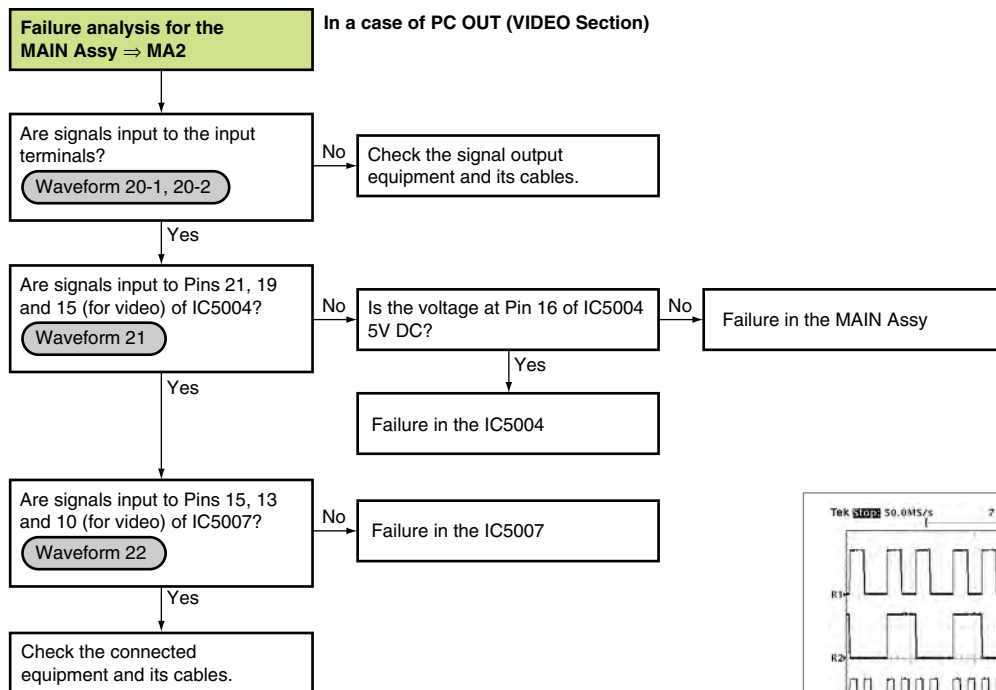
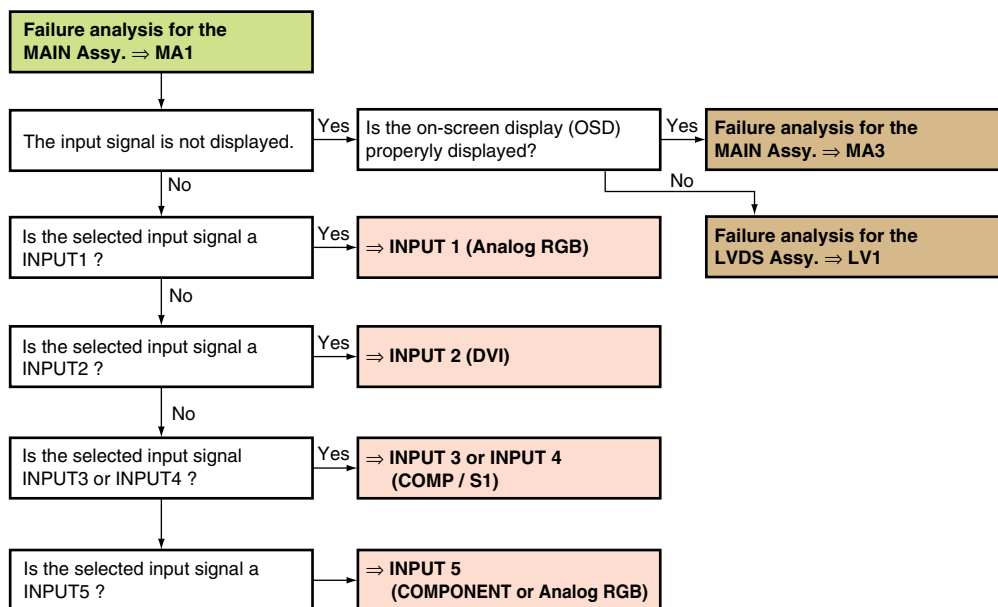
D

Failure analysis for the MAIN Assy. ⇒ MA1

E

F

Flowchart of Failure Analysis for The MAIN Assy



A

Failure analysis for the MAIN Assy ⇒ MA2

In a case of PC OUT (SYNC Section)

Are signals input to the input terminals?

Waveform 23

No

Check the signal output equipment and its cables.

Yes

Are signals input to Pins 4 and 7 (for sync) of IC5005?

Waveform 24

No

Is the voltage at Pin 1 of IC5005 5V DC?

No

Failure in the IC5604

Yes

Are signals input to Pins 2, 30 and 31 (for control) of IC5301?

Waveform 25

No

Failure in the MAIN Assy

Yes

Failure in the IC5301

B

C

Are signals input to Pins 3 and 6 (for sync) of IC5008?

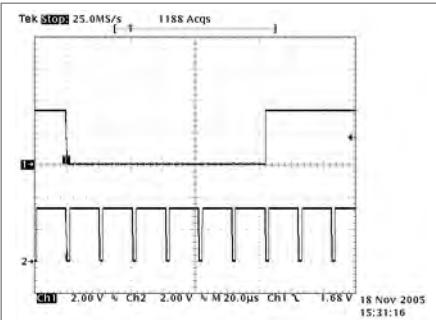
Waveform 26

No

Failure in the IC5008

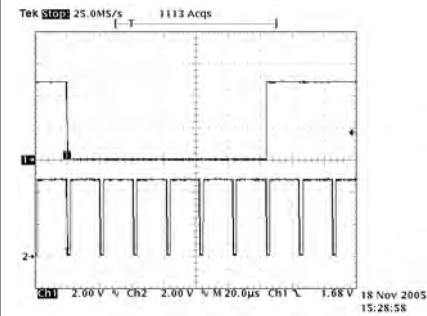
Yes

Check the connected equipment and its cables.

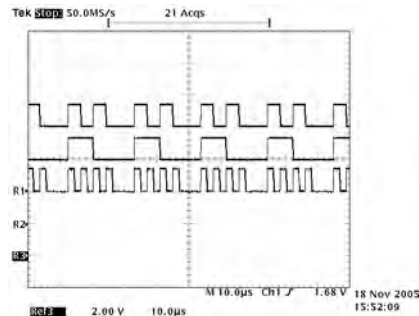


Waveform 24

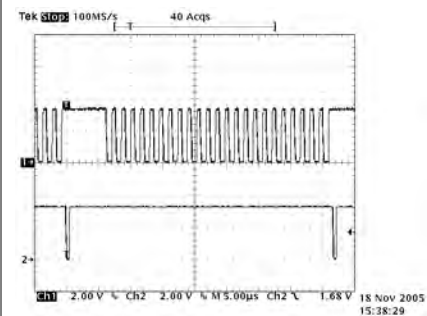
D



Waveform 20-2

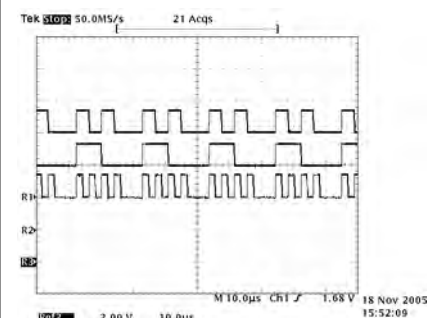


Waveform 22

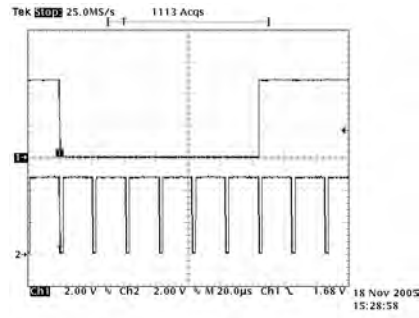


Waveform 25

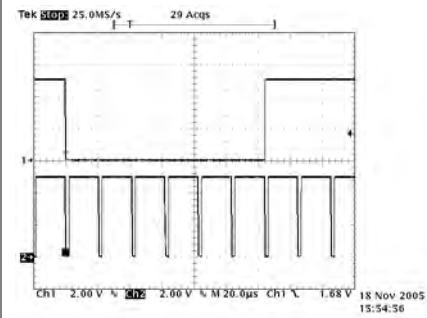
E



Waveform 21

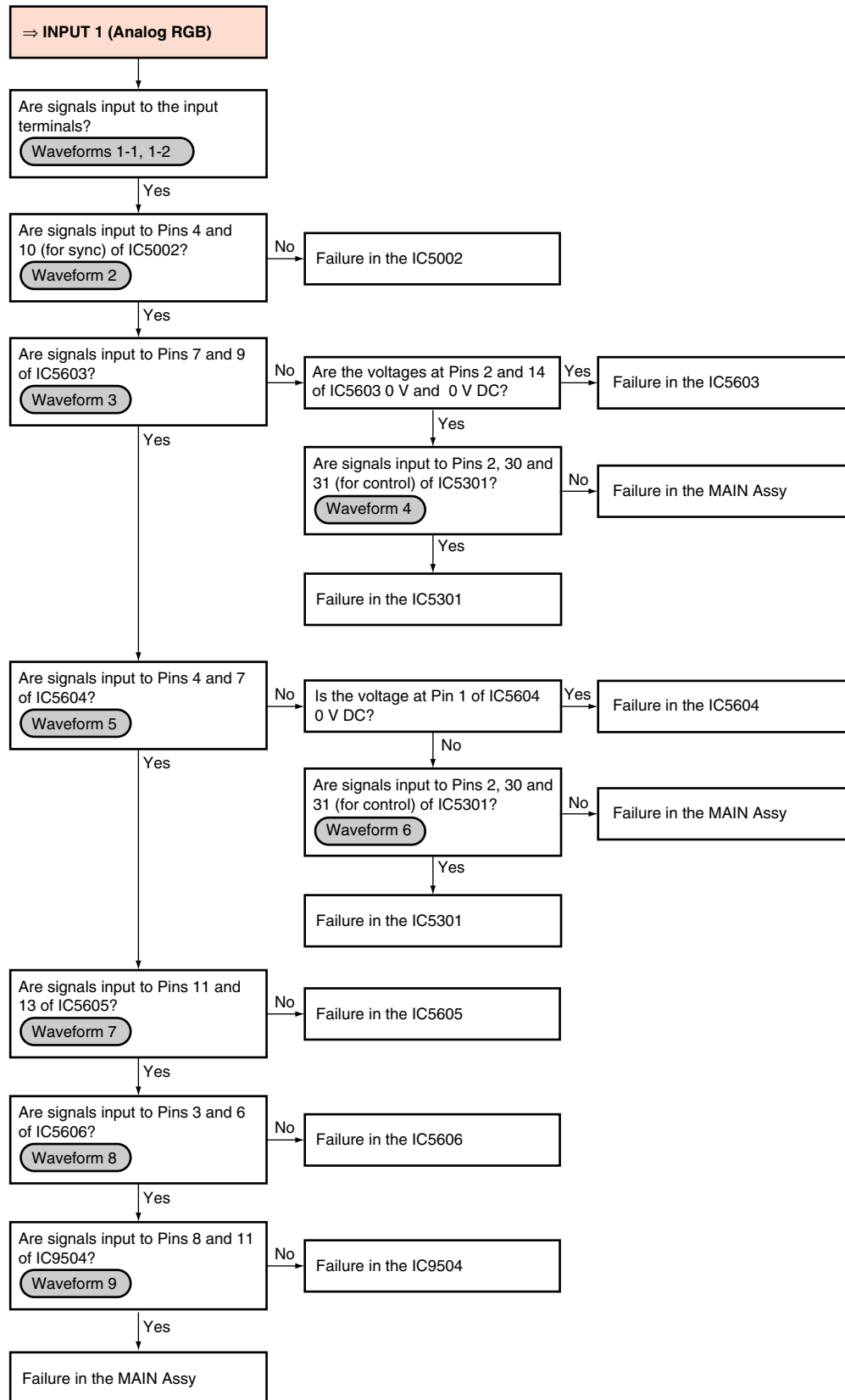


Waveform 23

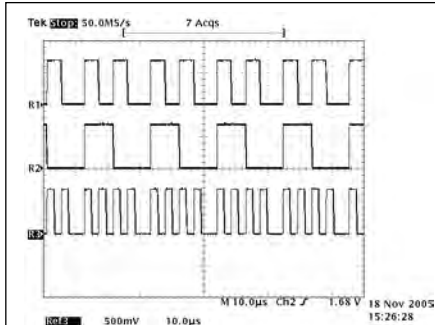


Waveform 26

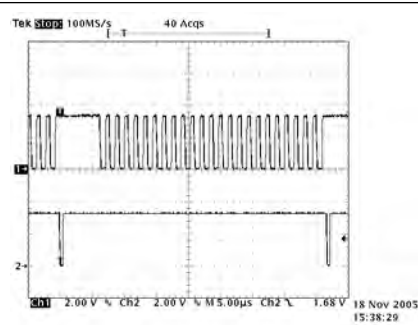
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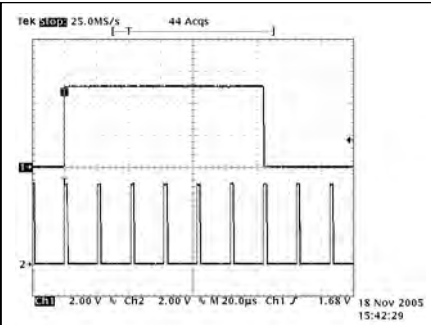
A



Waveform 1-1

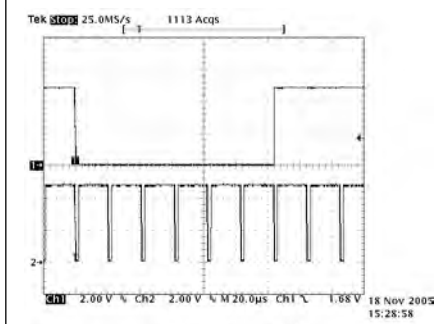


Waveform 4

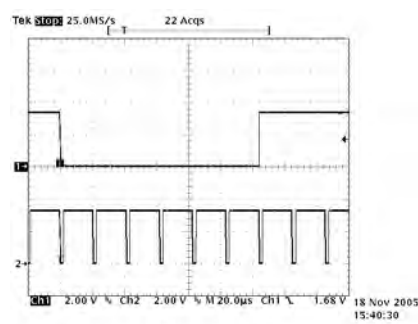


Waveform 8

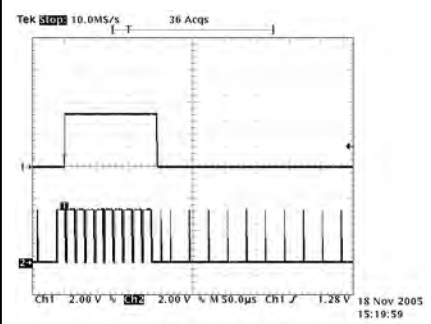
B



Waveform 1-2

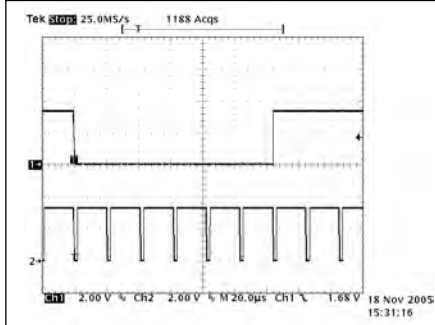


Waveform 5

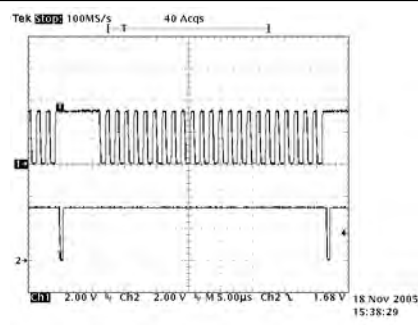


Waveform 9

C

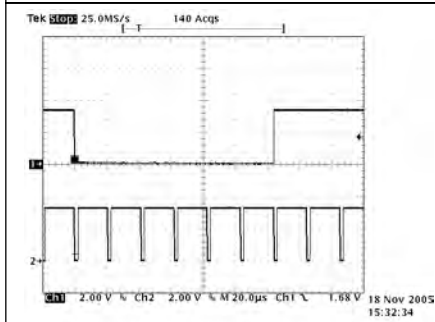


Waveform 2

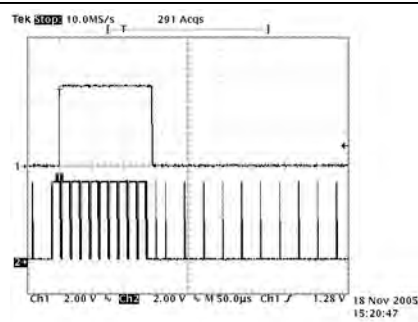


Waveform 6

D



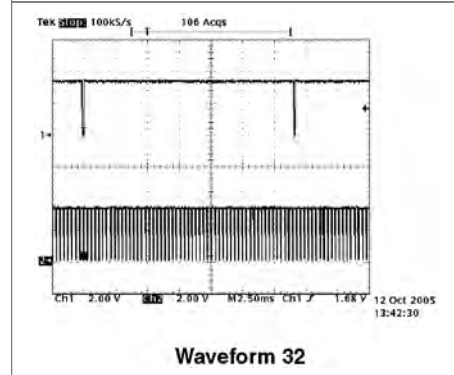
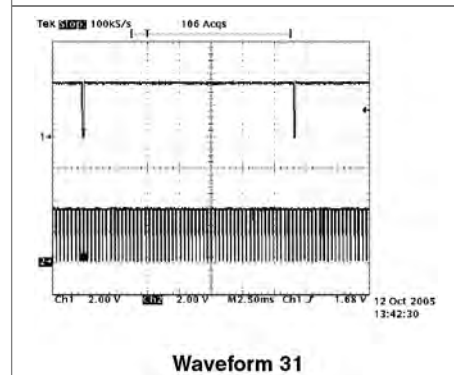
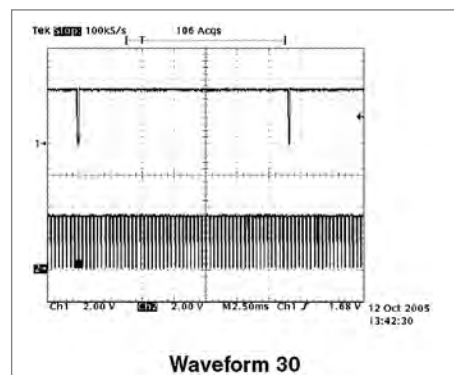
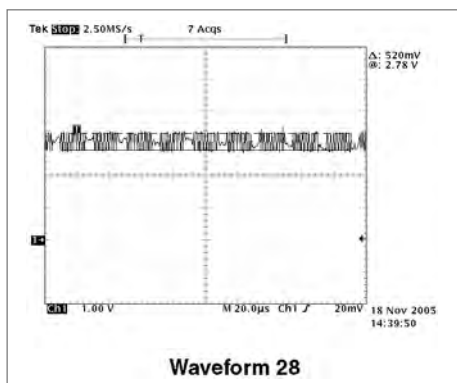
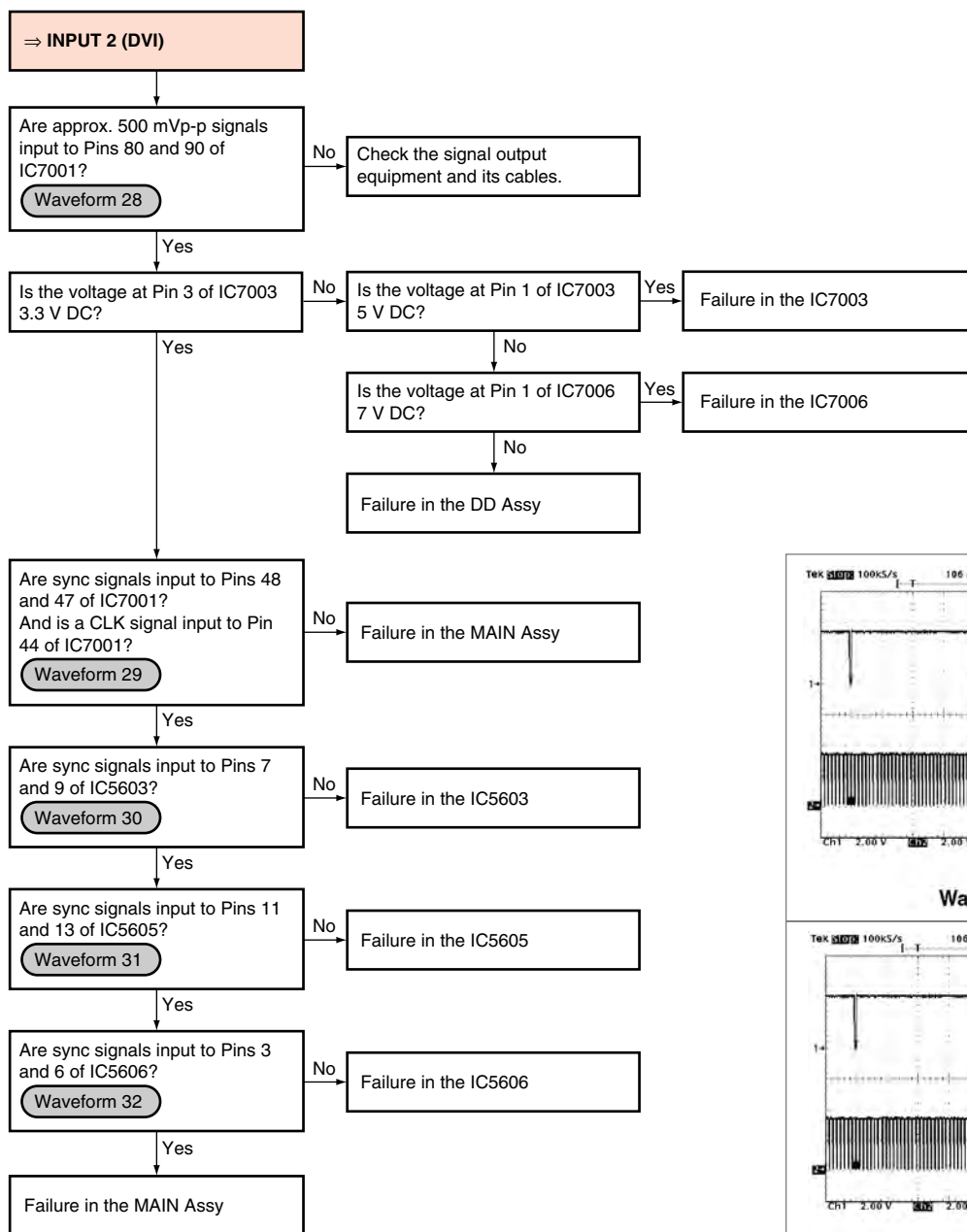
Waveform 3



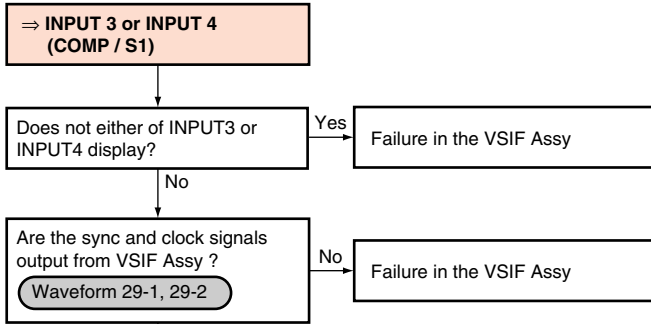
Waveform 7

E

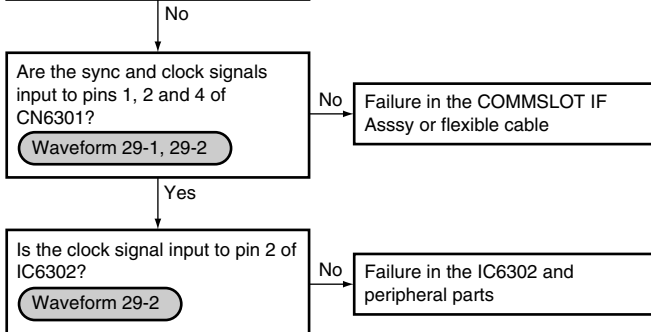
F



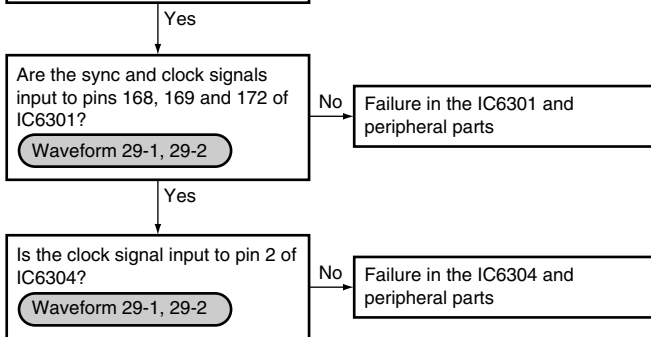
A



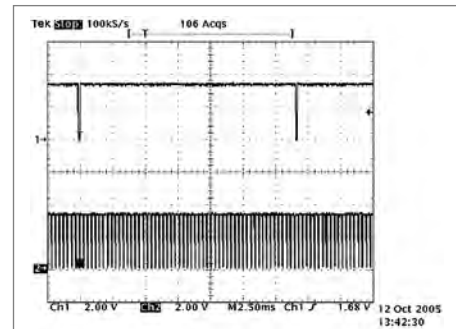
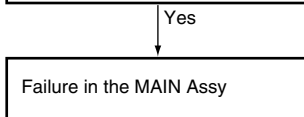
B



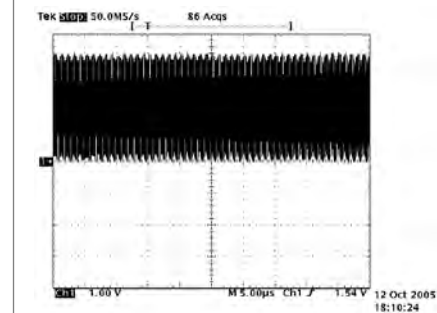
C



D



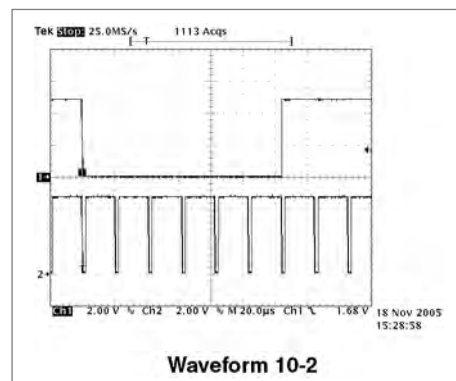
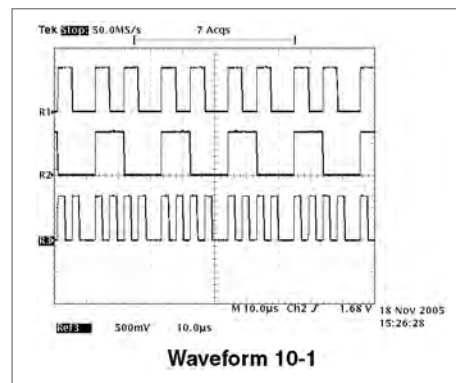
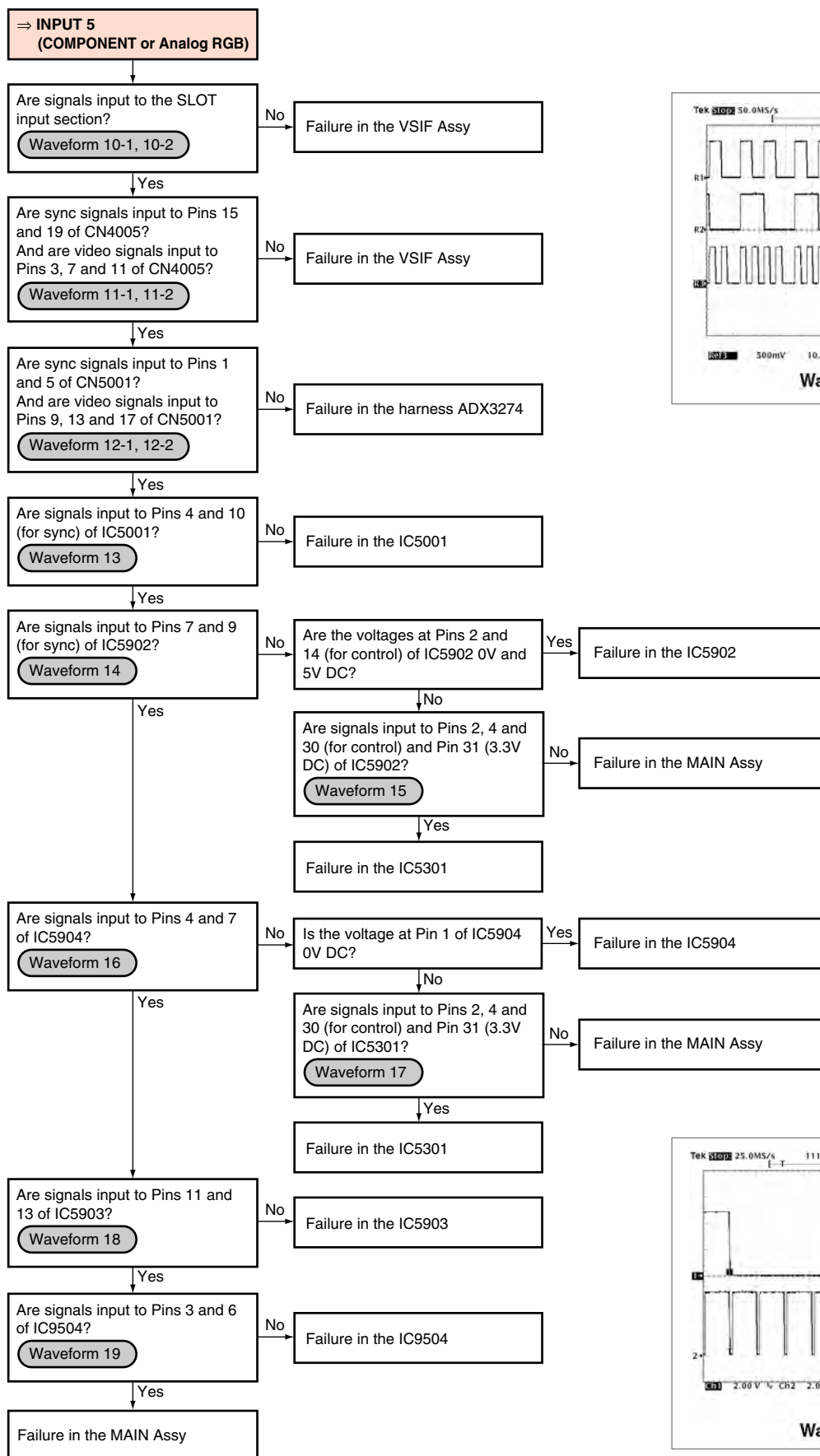
Waveform 29-1



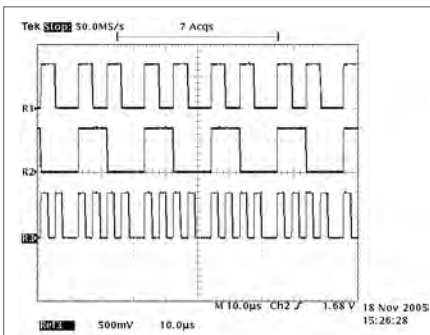
Waveform 29-2

E

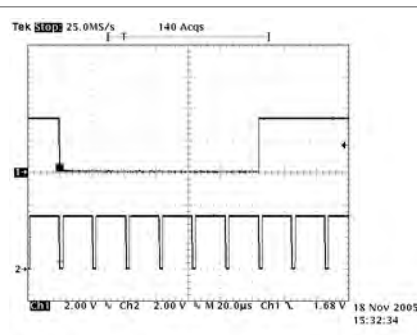
F



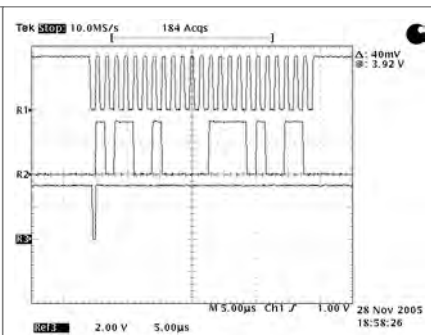
A



Waveform 11-1

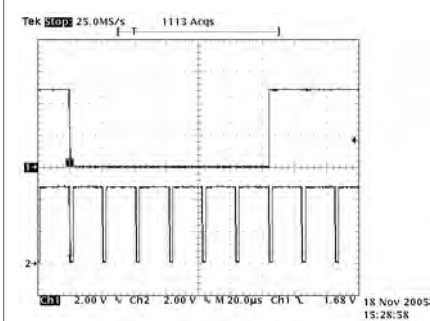


Waveform 13

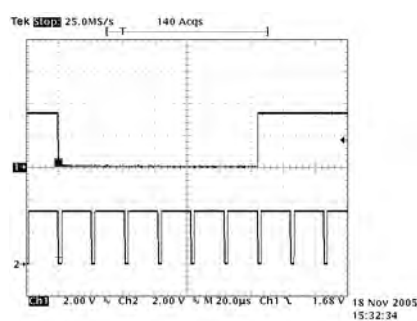


Waveform 17

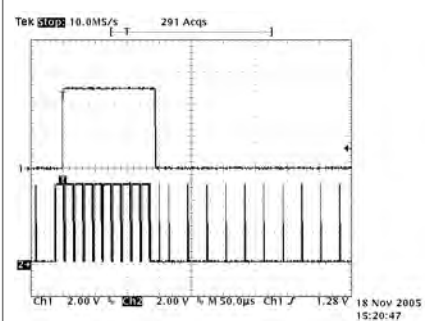
B



Waveform 11-2

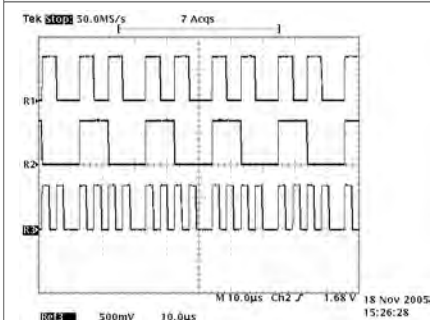


Waveform 14

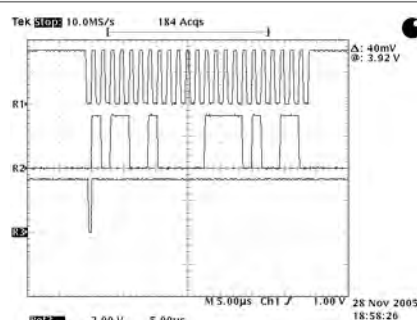


Waveform 18

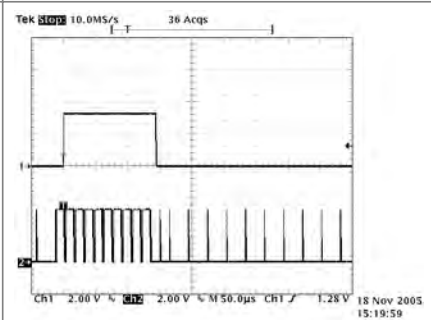
C



Waveform 12-1

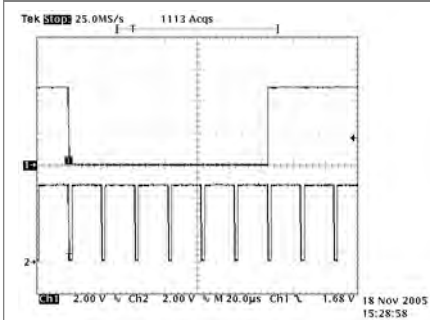


Waveform 15

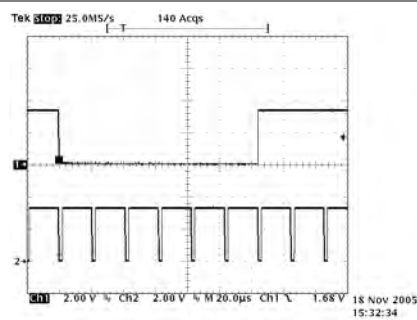


Waveform 19

D



Waveform 12-2

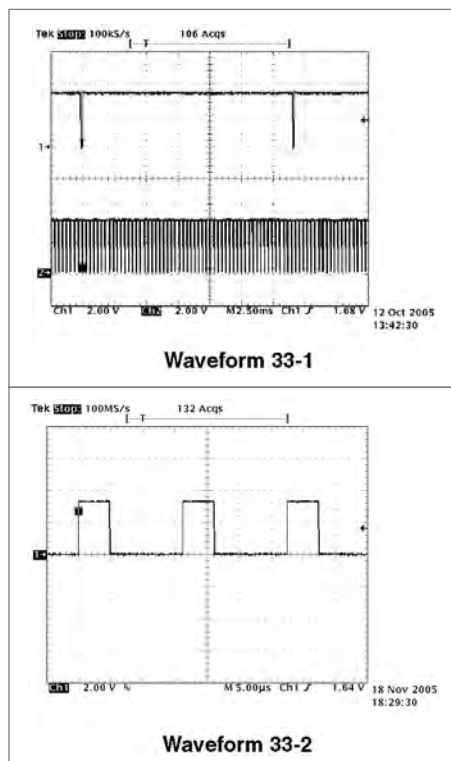
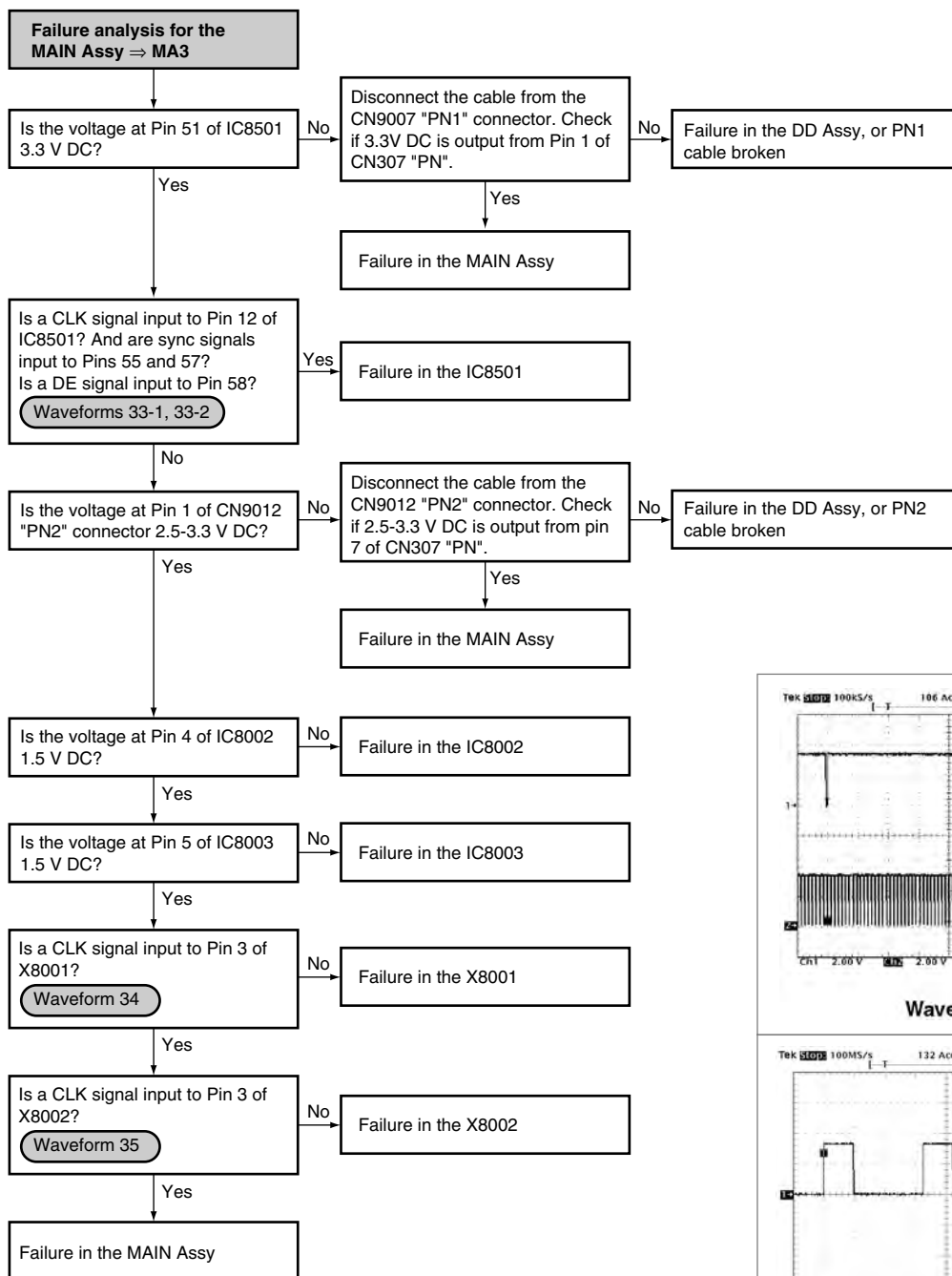


Waveform 16

E

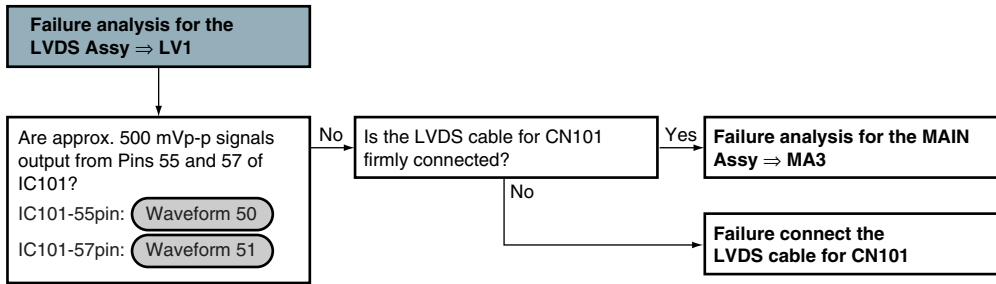
F

In a case when no image from any input appears

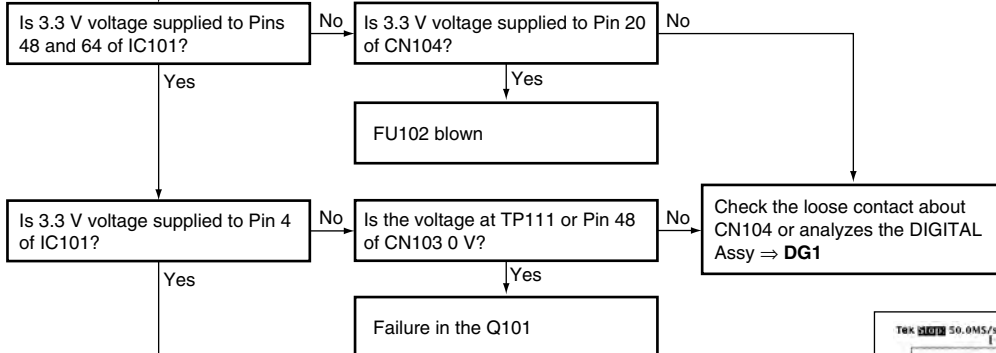


Flowchart Failure Analysis for The LVDS Assy

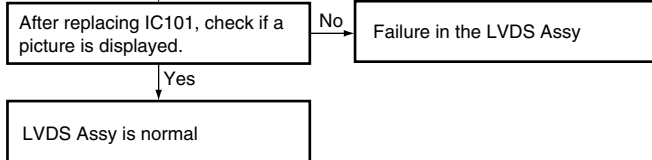
A



B

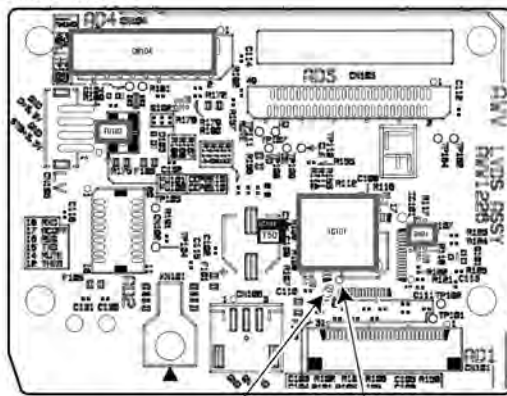


C



D

LVDS ASSY

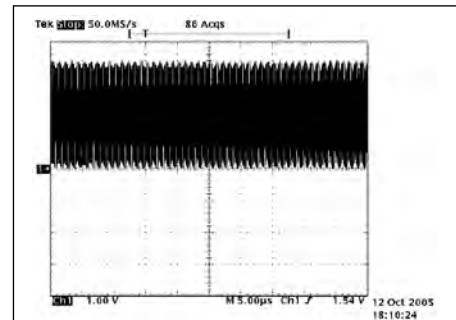


Waveform 50

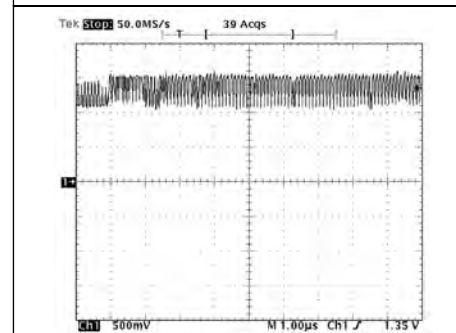
Waveform 51

E

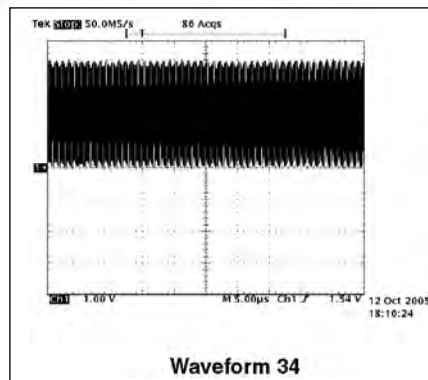
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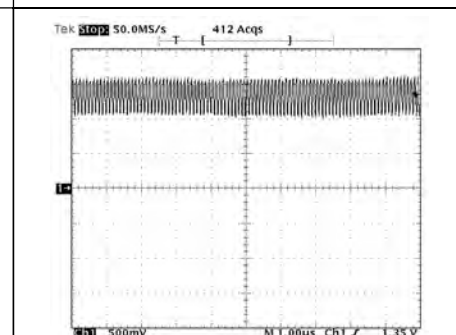
Waveform 35



Waveform 50



Waveform 34

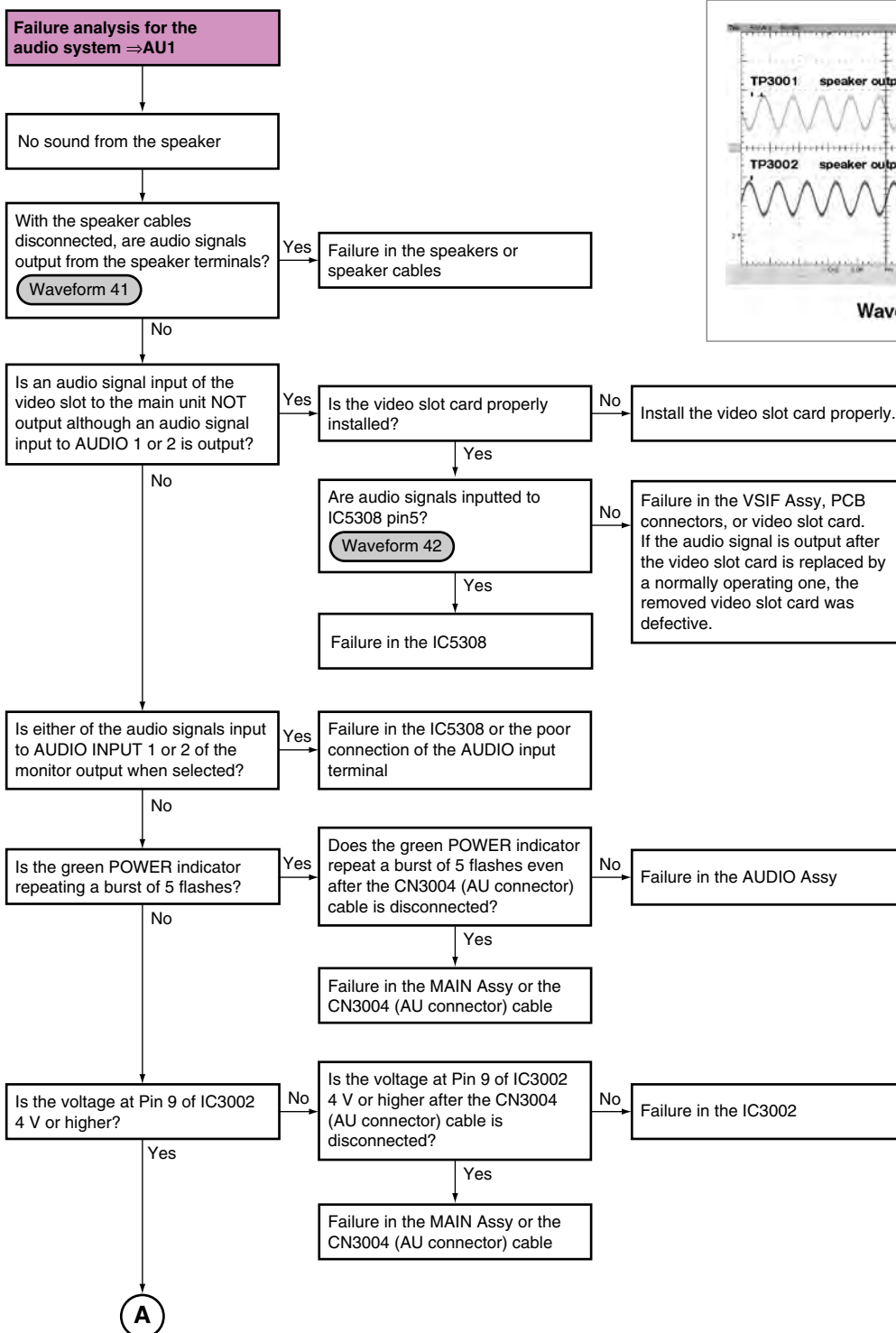


Waveform 51

Flowchart of Failure Analysis for The Audio System (AUDIO Assy)

Note: Before performing a failure diagnosis, be sure to check that the settings of the unit are properly made by referring to its specifications and instruction manual.

If speaker outputs with different polarities or a speaker output and ground are short-circuited, the protection circuit is activated, and audio will not be output. In this case, turn the power off at the Main Power Switch, make connections properly, then turn the power back on again. The protection circuit will then be released.



A

A

Are the PWM waveforms output from Pins 41, 43, 47 and 48 of IC3002?

Waveform 43

Yes

No

Are the voltages shown in the table below output from each pin of the PA connector (CN3003) on the AUDIO Assy?

Pin_No.	Name	Voltage
1-3	S + 12	12.2 Vdc
4-6	GND	GND

Yes

Failure in the IC3002

No

Is not there abnormality in connection of the CN3003 connector ?

Yes

Failure in the CN3003 connection cable

No

Failure in the DD Assy

B

Is the 9 V DC applied to the both ends of L3005 and L3006?

No

Failure in the IC3001, IC3002 and IC3004

Yes

Is the audio signal waveform output from Pin 11 of IC3001?

Waveform 44





No

Failure in the IC3002

Yes

C

Are the waveforms shown below output from the AU connector (CN3004) on the AUDIO Assy?

Pin 8  5Vpp
Pin 9  5Vpp
Pin 7  9.0Vdc
Pin 5  3.3Vdc
Pins 1 and 3: Audio signal waveform





Yes

Failure in the IC3001

No

D

Are the waveforms shown below output from the AU connector (CN9001) on the MAIN Assy ?

Pin 8  5Vpp
Pin 9  5Vpp
Pin 7  9.0Vdc
Pin 5  3.3Vdc
Pins 1 and 3: Audio signal waveform

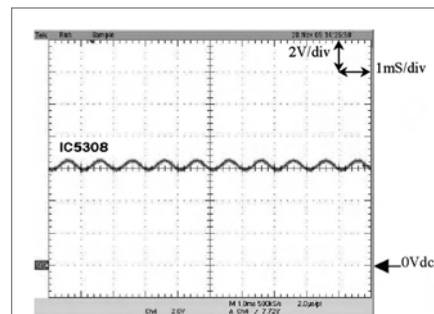
Yes

Failure in the CN9001 connection cable (AU connector)

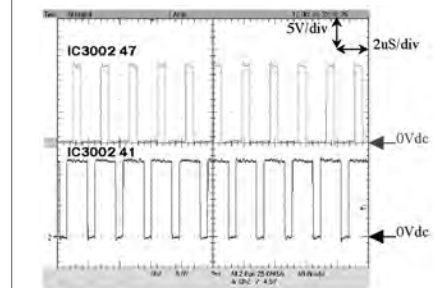
No

B

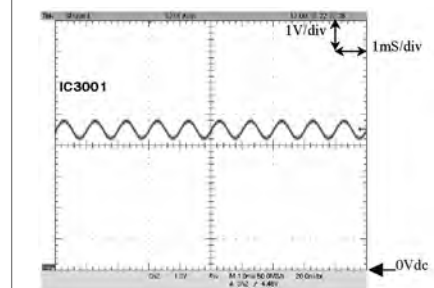
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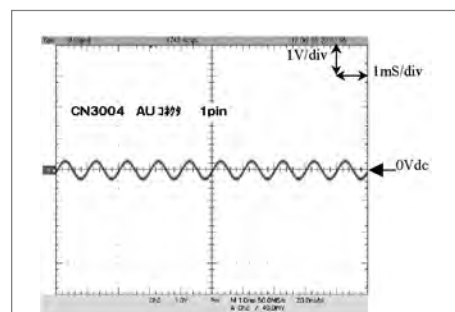
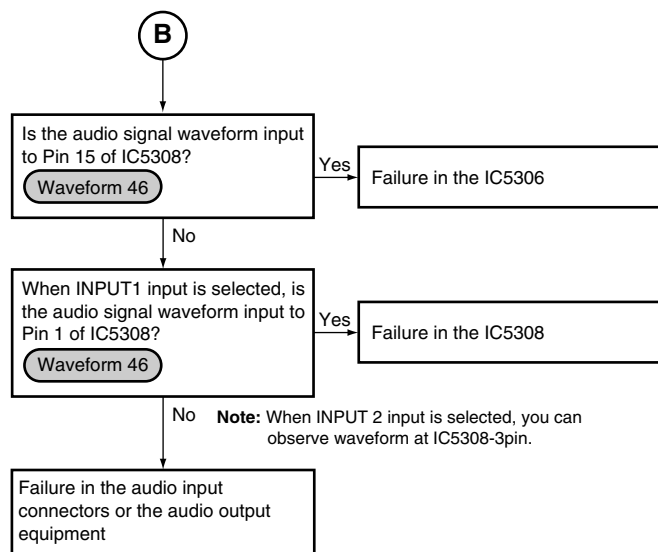
Waveform 42



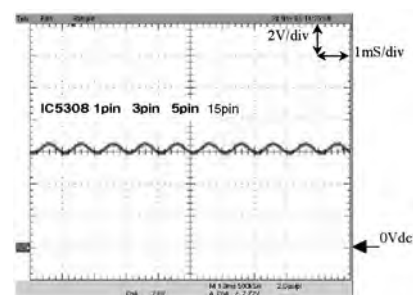
Waveform 43



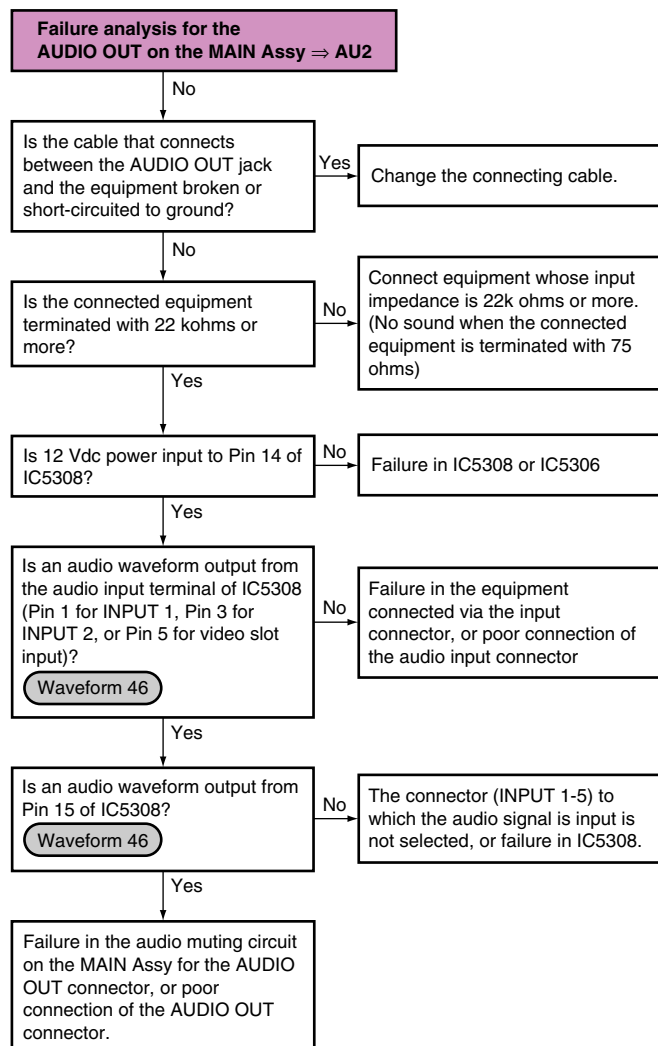
Waveform 44



Waveform 45



Waveform 46



Flowchart of Failure Analysis for The Remote Receiver Unit

A

Failure analysis for the remote receiver unit ⇒ RM1

No

Is the signal shown below output from Pin 6 of CN9010 on the MAIN Assy?

Yes

Failure in the MAIN Assy

No

B

Is the signal shown below output from Pin 10 of IC2301 on the COMM SLOT I/F Assy?

Yes

Failure in the IC2301 of COMMSLOT IF Assy

No

Is the signal shown below output from Pin 1 of CN2401 on the LED Assy?

Yes

Failure in the Q2302 or Q2301 of COMMSLOT IF Assy

No

C

Failure in the U2401 of LED Assy

D

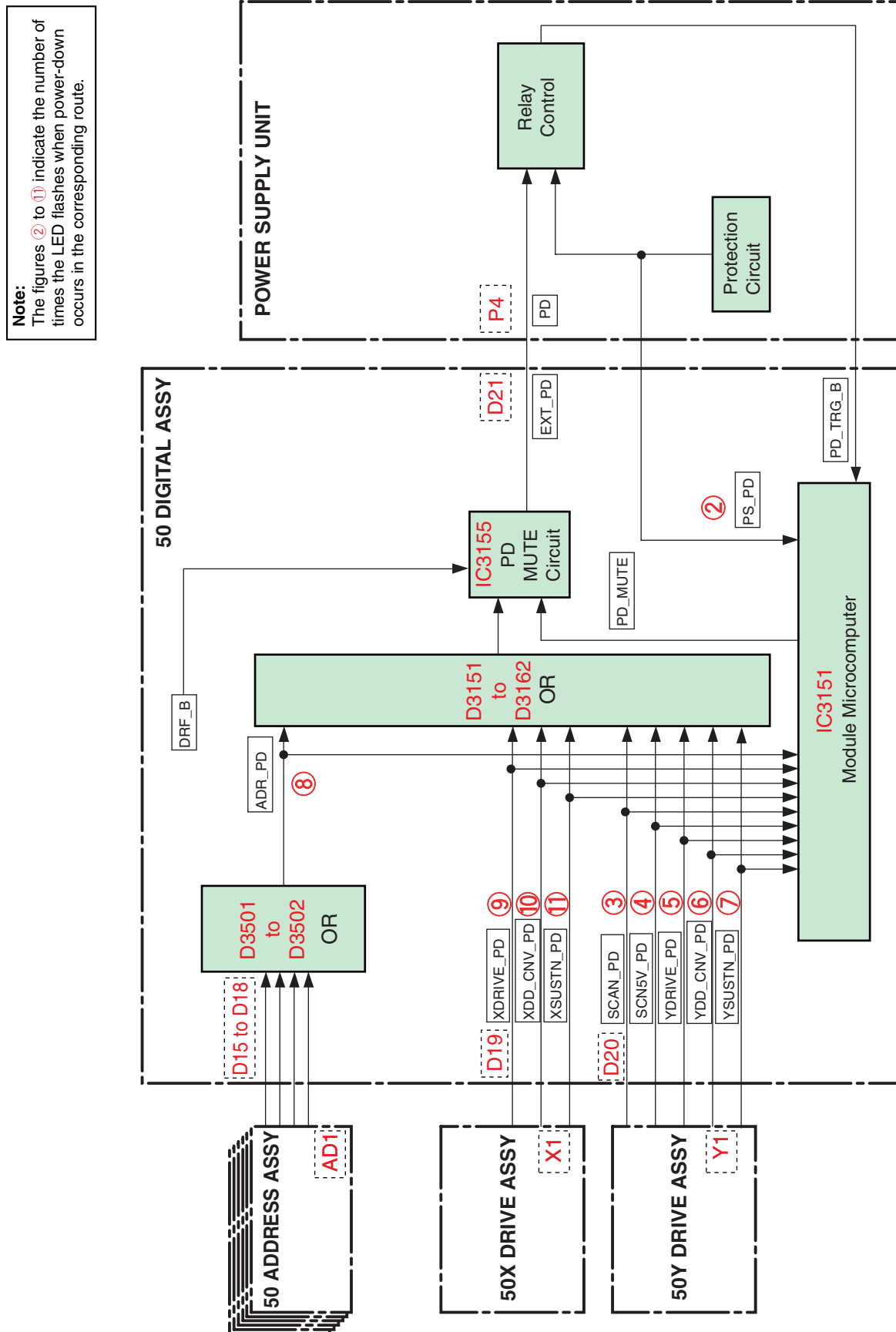
E

F

5.2 POWER DOWN

5.2.1 BLOCK DIAGRAM OF THE POWER-DOWN SIGNAL

■ Block Diagram of the Power-Down Signal



5.2.2 POWER DOWN OF FAILURE ANALYSIS

Prediction of failure symptoms when a PD (power-down) is generated

A

LED Flashing Count	PD Circuit	Checkpoint	Main Cause
2	Power supply PD	POWER SUPPLY Unit	Failure in the POWER SUPPLY Unit
3	SCAN PD	50 SCAN A, B Assy	SCAN IC is damaged (short-circuiting between VH and GNDH)
		50Y DRIVE Assy	Connectors disconnected between the POWER SUPPLY Unit and the Y DRIVE Assy Connectors disconnected between the DIGITAL and the Y DRIVE Assys Failure in the VH power
4	IC5V PD	50SCAN A, B Assy	SCAN IC is damaged (short-circuiting between IC5V and GNDH)
			Disconnection of the scan-bridge (15-pin) connector
		50Y DRIVE Assy	Failure in the photo coupler Abnormality in the IC5V DC/DC converter
5	Y-DRIVE PD	50Y DRIVE Assy	Abnormality in the 16.5 V power
6	Y DCDC PD	50Y DRIVE Assy	Abnormality in the VOFS DC/DC converter
			Abnormality in the VPRST DC/DC converter
			Abnormality in VC_15V DC/DC converter
7	Y SUS PD	50Y DRIVE Assy	Abnormality in the DK module
			Abnormality in the control signal line
8	Address PD	50 ADDRESS Assy	Short-circuiting of Vadr TCP damaged
9	X-DRIVE PD	50X DRIVE Assy	Connectors disconnected between the DIGITAL and the X DRIVE Assys
			Abnormality in the 16.5 V power
10	X DCDC PD	50X DRIVE Assy	Abnormality in VC_15V power
			Abnormality in VXNRST power
			Abnormality in the DK module
11	X SUS PD	50X DRIVE Assy	Abnormality in the control signal line
			Connectors disconnected between the POWER SUPPLY Unit and the X DRIVE Assy

B

C

How to distinguish which connector is disconnected

D

Assy	Connector	To which Assy the Connector is Connected	Frequency of LED Flashing	Screen Display
50X DRIVE Assy	CN1001	50 DIGITAL Assy	11 (XDRIVE)	—
	CN1205	POWER SUPPLY Unit (ADR system power)	—	White (left half of the screen)
	CN1204	POWER SUPPLY Unit (drive system power)	12 (X-SUS)	—
	CN1206	50 ADDRESS Assy	8 (ADR)	—
50Y DRIVE Assy	CN2001	50 DIGITAL Assy	3 (SCAN)	—
	CN2204	POWER SUPPLY Unit (drive system power)	3 (SCAN)	—
	CN2206	POWER SUPPLY Unit (ADR system power)	—	White (right half of the screen)
	CN2205	50 ADDRESS Assy	8 (ADR)	—
	CN2601	50 SCAN A, B Assy	4 (SCN-5V)	—
50 SCAN A, B Assy	CN2801	50Y DRIVE Assy	4 (SCN-5V)	—
50 ADDRESS Assy	CN1602, CN1802	50 DIGITAL Assy	8 (ADRS)	—
	CN1601, CN1801	50X DRIVE Assy, 50Y DRIVE Assy	8 (ADRS)	—

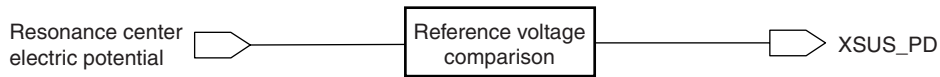
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F

Operation PD	Defective Assy	Outline of P.D.	Checkpoint	Possible Defective Parts	Remarks
2	POWER	P SUPPLY Ass'y			
3	SCAN	SCAN Assy Y DRIVE Ass'y	SCAN IC	SCAN IC	VH-GNDH short
			Y SUS BLOCK	IC2252, IC2253	VSUS-SUSOUT, SUSOUT-SUSGND short
			VH DC/DC	IC2502, L2501	
4	SCN-5V	Connector disconnection detection Connector disconnection detection IC5V UVP	CN2001, CN2350		
			CN2401, CN2402		
			SCAN IC	SCAN IC	
6	Y-DCDC	VOFS UVP Vprst UVP	IC5V DC/DC	Q2605, R2647	
			VOFS DC/DC	Q2606, R2619, R2620	
			Y SUS BLOCK	IC2252, IC2253, Q2280, Q2281	MSKS-SUSOUT short
7	Y-SUS	Center voltage detection PD	Vprst Regulator	Q2531, Q2532, IC2535	
			Y RESONANCE BLOCK	IC2101	
8	ADRS	Address PD Connector disconnection detection	Y SUS BLOCK	Q2221	
			ADDRESS RESONANCE BLOCK	D1634	V+ADR-GND_ADR short
10	X-DCDC	VRN UVP	CN1501		
			VRN DC/DC	Q1323, R1332, R1333	
11	X-SUS	Center voltage detection PD	X SUS BLOCK	Q1272	
			X RESONANCE BLOCK	IC1101	

OVP : OVER VOLTAGE PROTECT
UVP : UNDER VOLTAGE PROTECT

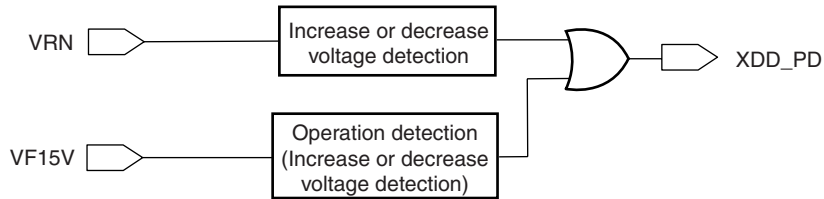
A

X Drive PD system

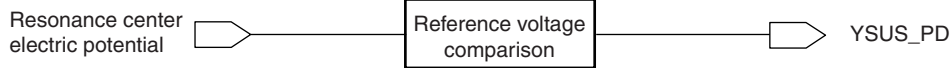
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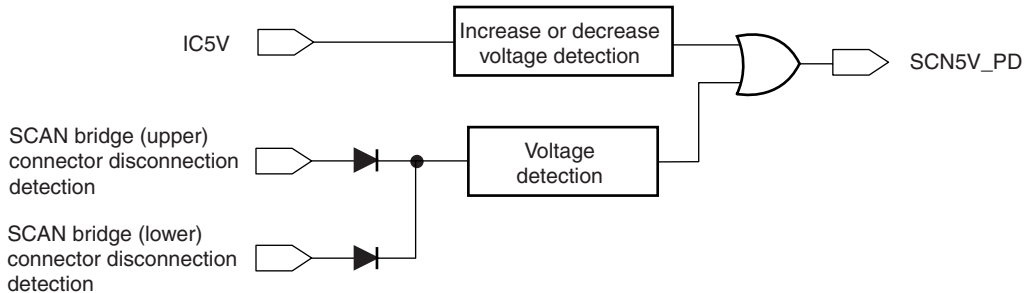
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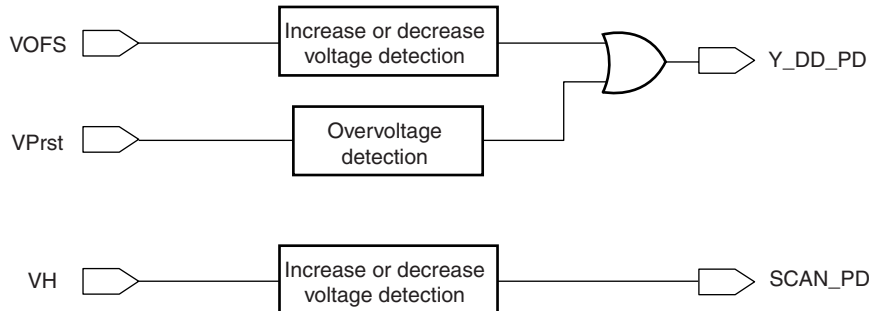
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Y Drive PD system

D



E



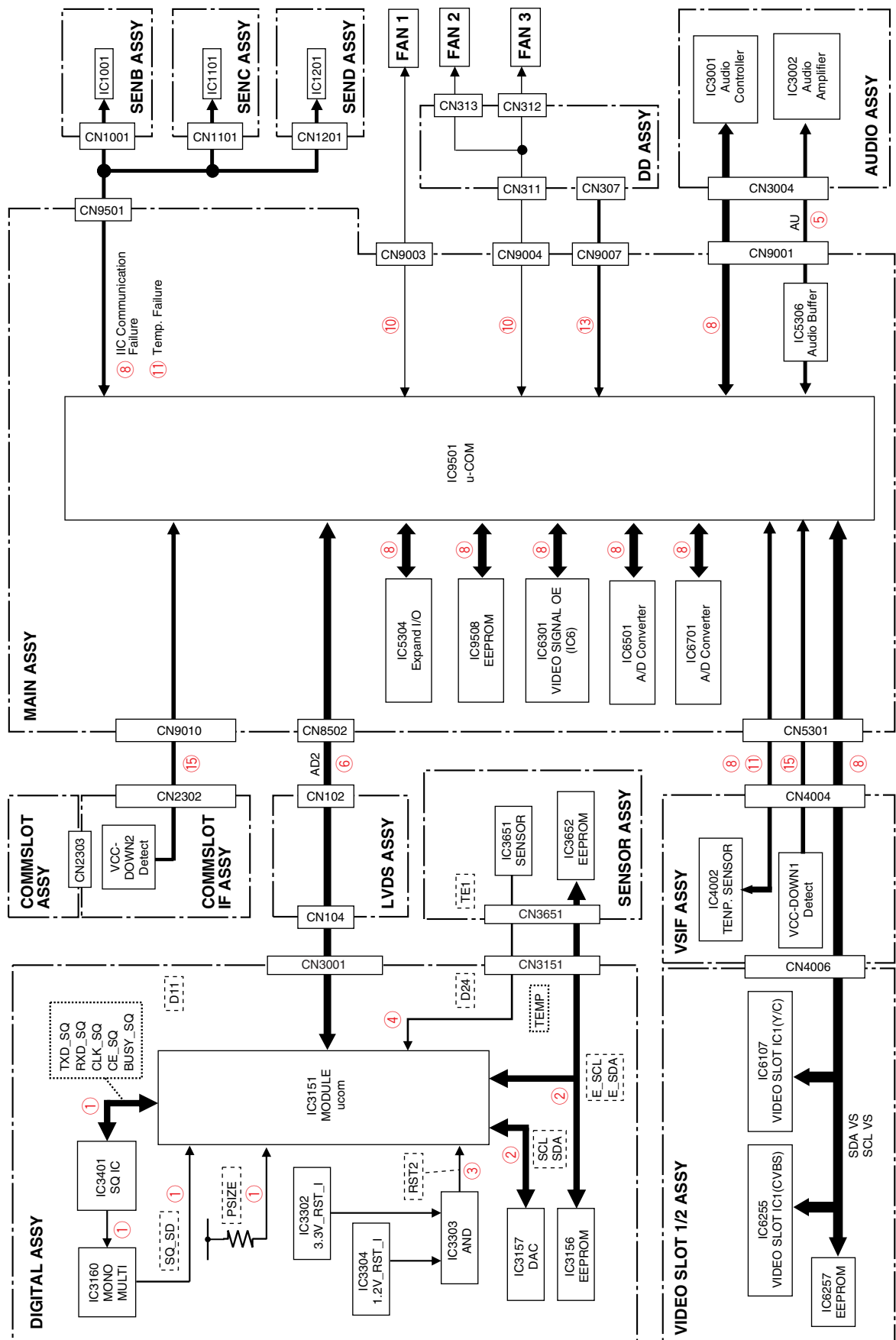
F

5.3 SHUT DOWN

5.3.1 BLOCK DIAGRAM OF THE SHUT-DOWN SIGNAL

■ Block Diagram of the Shutdown Signal

Note : The figures ① to ⑬ indicate the number of times the LED flashes when shut-down occurs in the corresponding route.



5.3.2 SHUT DOWN OF FAILURE ANALYSIS

Frequency of LED Flashing	Major Type	Detailed Type	Log Indication in Factory Mode		Checkpoint	Possible Defective Part	Remarks
			MAIN	SUB			
1	Abnormality in the Sequence Processor	Communication error		RTRY	CLK_SQ/TXD_SQ, etc.	IC3151, IC3401	SQ_IC communication not established
		Drive stop		SQNO	Check if the video sync signal is input to IC3401.	CN3001, IC3401	If the signal detection by the module microcomputer is properly performed, the unit operates on an external sync.
		Busy	SQ-IC	BUSY	BUSY_SQ	IC3401	If BUSY_SQ remains high, a shutdown is generated.
2	Failure in IIC communication with the module microcomputer	Incoherent version (hardware, software)		VER-HS	Check the model number of the DIGITAL Assy and the destination of the SEQ-IC communication line of IC3156	IC3301, IC3401	The written SQ_PROG is incoherent with data on the DIGITAL Assy.
		DIGITAL Assy EEPROM		EEPROM	IIC communication line of IC3156	IC3151, IC3156	Check the pull-up resistor of the IIC control line and the power to the corresponding IC.
		PANEL SENSOR EEPROM	MD-IC	BACKUP	IIC communication line of IC3652	IC3151, IC3652	Check the pull-up resistor of the IIC control line and the power to the corresponding IC.
3	Abnormality in RST2 power decrease	DAC		DAC	IIC communication line of IC3157	IC3151, IC3157	Check the pull-up resistor of the IIC control line and the power to the corresponding IC.
			RST2		Is the output voltage of the DC-DC converter low?	AXY1137	If RST2 does not become high after the unit is turned on, a shutdown will be generated in several seconds.
					The 12 V power is not output.	POWER SUPPLY Unit (AXY1135)	Check if V + 12 V is started.
4	High temperature of the panel				Ambient temperature		If TEMP1 that is read by the module microcomputer is 75 °C or higher, a shutdown will be generated.
5	Short-circuiting of the speakers			TEMP1	Abnormality in the panel temperature sensor	AWW1116 (IC3901)	Check the connection with the SENSOR Assy.
					AMP IC	IC3002	AMP IC in failure Note: Check the connections of the speakers. A wrong usage of speakers by customers, such as extended time of short-circuiting of the speaker outputs or use of speakers with impedance of 6 ohms or less, may have caused a failure in the AMP IC.
6	Failure in communication with the module microcomputer				MODULE UCOM BLOCK	IC3151	Failure in communication with the module microcomputer or the defective surrounding circuitry is suspected. Check if the communication line (TXD0/RXD0) is short-circuited or open.
					MODULE UCOM BLOCK	IC3151	Failure in writing in the module microcomputer
					AD2 connector		Check if cables are firmly connected.
7	Not used						
8	Failure in IIC communication with the main microcomputer	Temperature sensor			Temperature sensor		The temperature sensors do not operate properly. Check if the cables from the three temperature sensors are properly connected.
		MAIN			Failure in communication with the EEPROM	IC9508	Communication with the EEPROM that backs up the latest settings of the main microcomputer failed. Possible causes are disconnection of the IIC line (SCL Pin 6, SDA Pin 5), short-circuit, or defective IC.
		VIDEO SLOT			Failure in communication with the VIDEO SLOT IC1 (CVBS)	IC6255	Communication with the video decoder that is mounted in the video slot failed. Possible causes are disconnection of the IIC line (SCL Pin 37, SDA Pin 36), short-circuit, or defective IC.
		VIDEO SLOT			Failure in communication with the VIDEO SLOT IC1 (Y/C)	IC6107	Communication with the A/D converter failed. Possible causes are disconnection of the IIC line (SCL Pin 119, SDA Pin 118), short-circuit, or defective IC.
		MAIN			Failure in communication with the A/D Main (A system)	IC6501	Communication with the IIC line (SCL Pin 119, SDA Pin 118), short-circuit, or defective IC.
		MAIN			Failure in communication with the A/D Sub (B system)	IC6701	Communication with the IIC line (SCL Pin 119, SDA Pin 118), short-circuit, or defective IC.
		MAIN			Failure in communication with the IC6	IC6301	Communication with the RGB signal switch failed. Possible causes are disconnection of the IIC line (SCL Pin 166, SDA Pin 165), short-circuit, or defective IC.
		VIDEO SLOT			Failure in communication with the VIDEO SLOT EEPROM	IC6257	Communication with the EEPROM that is mounted in the video slot failed. Possible causes are disconnection of the IIC line (SCL Pin 6, SDA Pin 5), short-circuit, or defective IC.
		AUDIO			Failure in communication with the AUDIO CONTROL IC	IC3001	Communication with the audio control IC failed. Possible causes are disconnection of the IIC line (SCL Pin 18, SDA Pin 17), short-circuit, or defective IC.
		MAIN			Failure in communication with the extension I/O	IC5304	Communication with the extension I/O failed. Possible causes are disconnection of the IIC line (SCL Pin 22, SDA Pin 23), short-circuit, or defective IC.
9	Not used						
10	Abnormality in the fan				FAN	FAN or MAIN Assy or DD Assy	The fan is in failure. First check if a foreign object is caught in the fan. Then check if the FAN cable is properly connected.
11	Abnormality in temperature						The temperature of the unit or the ambient temperature may be abnormally high.
12	Not used						
13	Abnormality in the power supply voltage						As it is very difficult to identify the defective part, replacement of the Assy or the power unit is required.
14	Not used						
15	VCC-DOWN1 detection VCC-DOWN2 detection	VIDEO SLOT COMM SLOT			12 V circuit is in failure 13.5 V and 6.5 V circuits are in failure		

1. Function of lowering the luminance level (Information on symptoms that are not failure)

■ High-temperature protection function

If the temperature reaches 70 °C, the limit of the maximum count of plasma discharge is gradually lowered, in order to prevent overheating.

- Temperature control is performed based on the temperature value of TEMP1.
- The maximum count of plasma discharge is decreased by 8 every 5 seconds.
- The lowest limit of the maximum count of plasma discharge is about 700.
- The maximum count of plasma discharge will increase gradually once the temperature of the unit is lowered to a specified temperature.

■ Panel protection function 1 (for preventing burn-in during Still Picture mode)

If Still Picture mode is continued for 3 minutes or more, the limit of the maximum count of plasma discharge is gradually lowered, in order to reduce burn-in on the display.

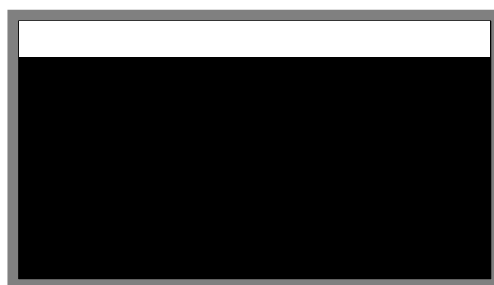
- Whether the image displayed is a still picture or not is detected, and the Panel Protection Function will be activated (Even if the mouse pointer is moved on a still picture, that picture is judged as a still picture.)
- The maximum count of plasma discharge is decreased by 8 every 5 seconds.
- The lowest limit of the maximum count of plasma discharge is about 700. (It takes about 15 minutes to reach the lowest limit, although it depends on what is displayed on the screen.)
- If the image is changed to an animated picture, the maximum count of plasma discharge is gradually increased.

Note: How to lower the luminance level is the same as that for the high-temperature protection function 1.

■ Panel protection function 2 (for protecting the SCAN IC)

If a particular load is added on the SCAN IC locally, as shown in the figure on the right, the limit of the maximum count of plasma discharge is gradually lowered.

Note: How to lower the luminance level is the same as that for the high-temperature protection function 1.

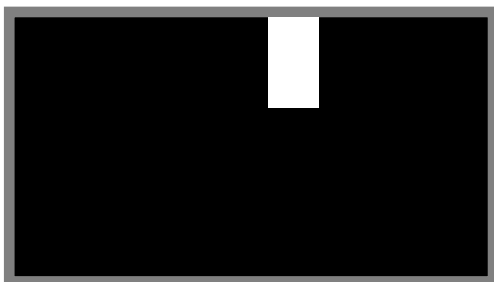


Example: A display with which the SCAN IC protection function is to be activated

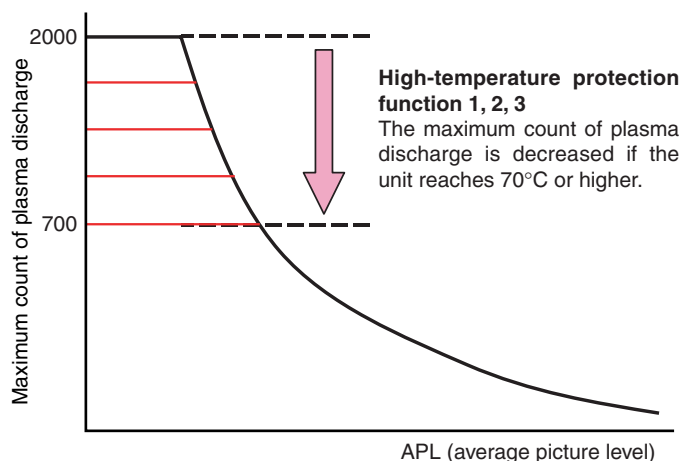
■ Panel Protection Function 3 (for protecting the panel from cracking)

The heating value for a bright window part on the screen, as shown in the figure on the right, is high. So, if such a pattern is recognized, the limit of the maximum count of plasma discharge is gradually lowered.

Note: How to lower the luminance level is the same as that for the high-temperature protection function.



Example: A display with which the panel-cracking protection function is to be activated



1 2 3 4

6. DISASSEMBLY

6.1 PCB LOCATION

A

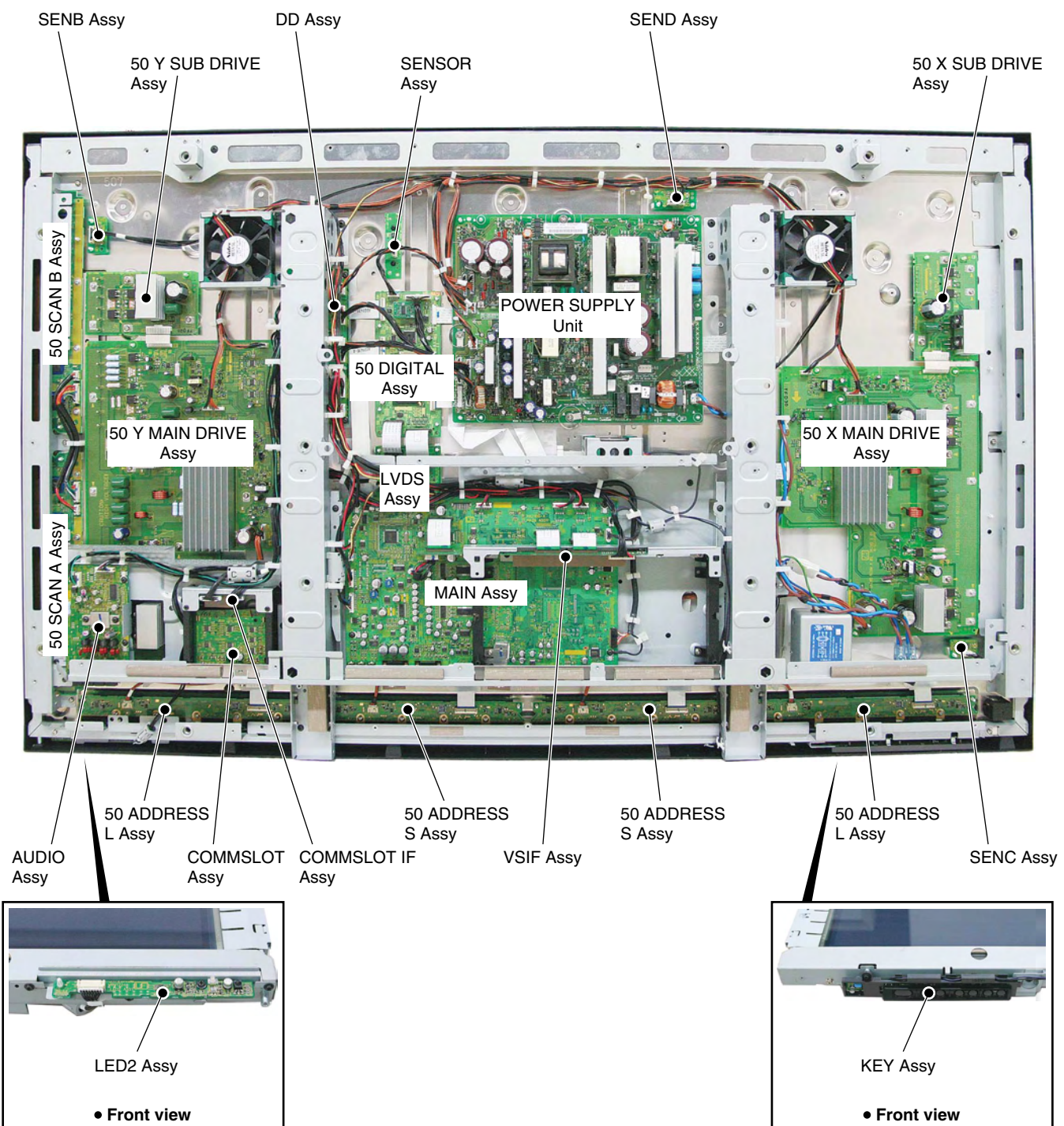
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C

D

E

F

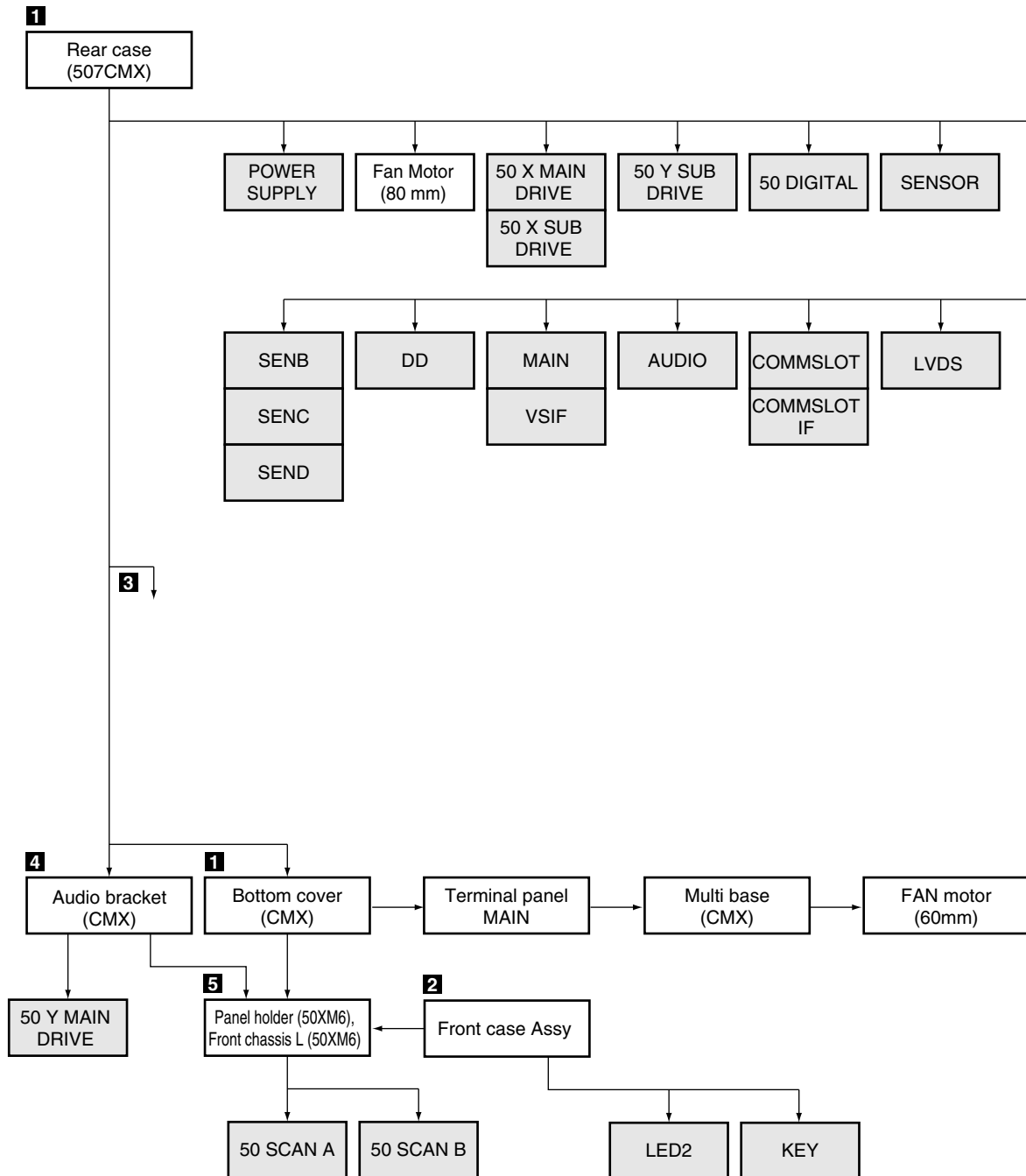


• Rear view

Note: Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

Chart of removal order for the main parts and boards

It is efficient to proceed with removal of the main parts and boards in the order shown in the chart below:

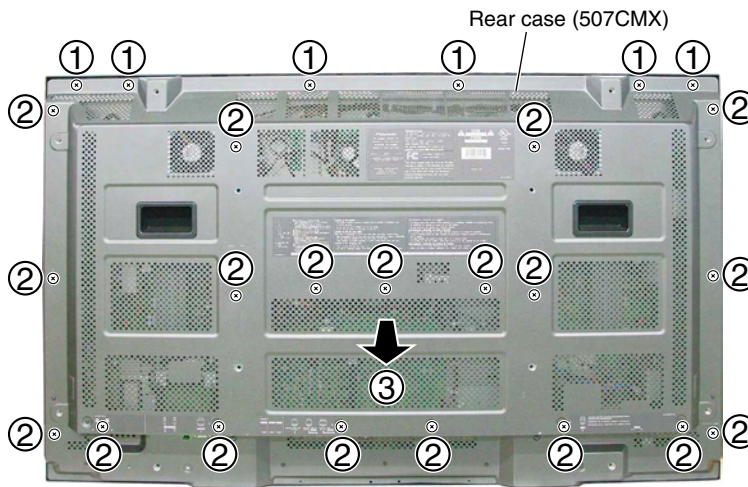


A Disassembly

1 Rear Case (507CMX) and Bottom Cover (CMX)

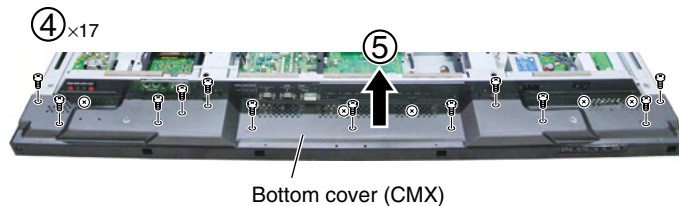
● Rear case (507CMX)

- ① Remove the six screws. (TBZ40P080FTB)
- ② Remove the 19 screws. (AMZ30P060FTB)
- ③ Remove the rear case (507CMX).



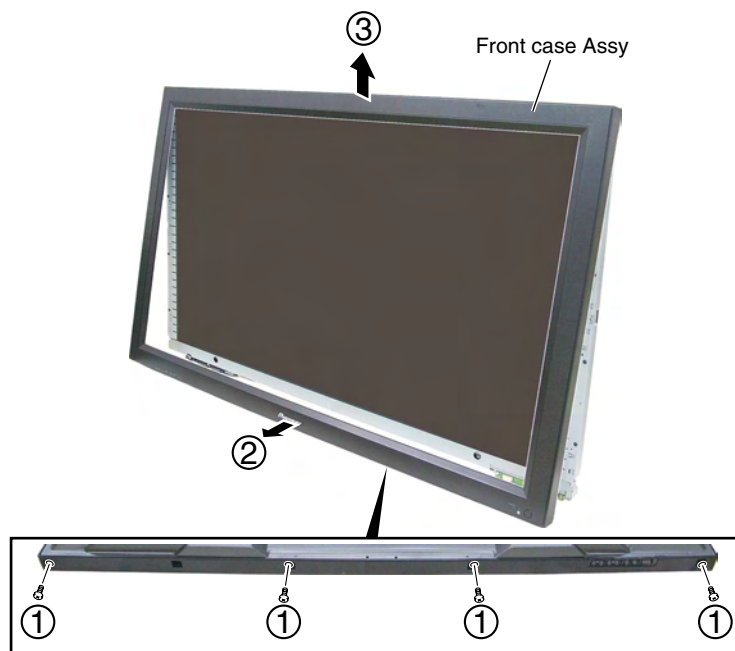
● Bottom Cover (CMX)

- ④ Remove the 17 screws. (AMZ30P060FTB)
- ⑤ Remove the bottom cover (CMX).



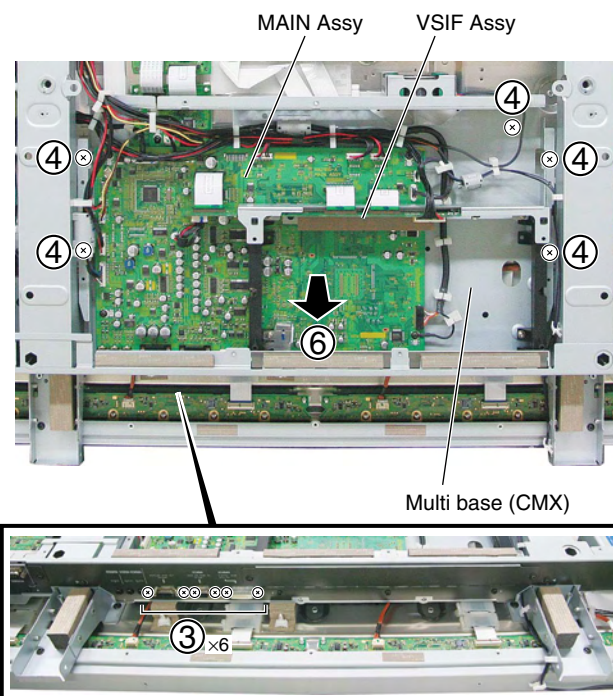
2 Front Case Assy

- ① Remove the four screws. (AMZ30P060FTB)
- ② Pull the lower part of the front case Assy toward you and out.
- ③ Remove the front case Assy, by pulling it upward.



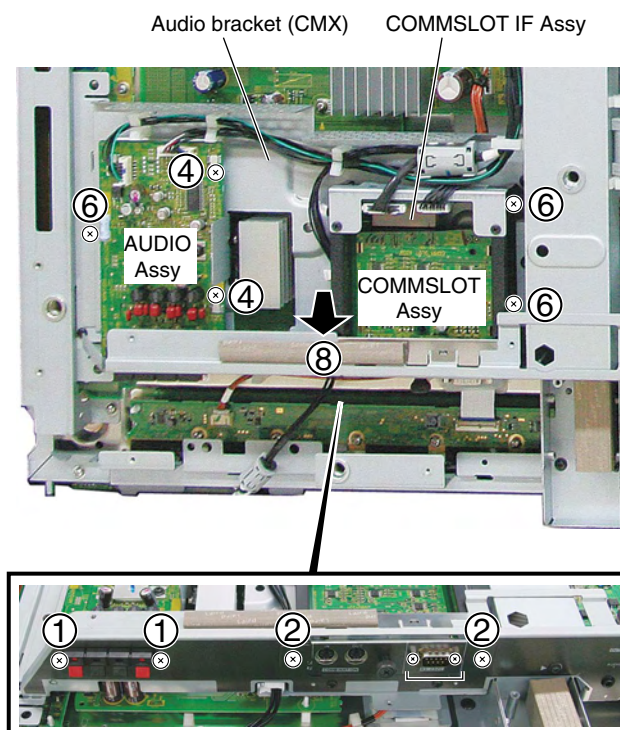
3 Multi Base (CMX)

- ① Remove the rear case and the bottom cover.
- ② Remove the two screws and the terminal panel MAIN.
- ③ Remove the six hex. head screws.
- ④ Remove the five screws.
- ⑤ Disconnect cables, connectors, as required.
- ⑥ Remove the multi base (CMX) with PC boards.



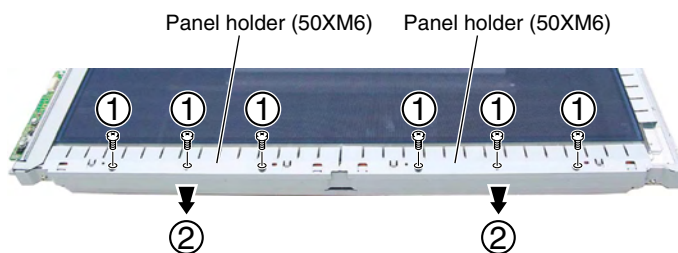
4 Audio Bracket (CMX)

- ① Remove the two screws.
- ② Remove the two screws and the terminal panel. Then remove the COMM unit.
- ③
- ④ Remove the five screws.
- ⑤ Remove the AUDIO Assy.
- ⑥ Remove the three screws.
- ⑦ Disconnect cables, connectors, as required.
- ⑧ Remove the audio bracket (CMX) with PC boards.

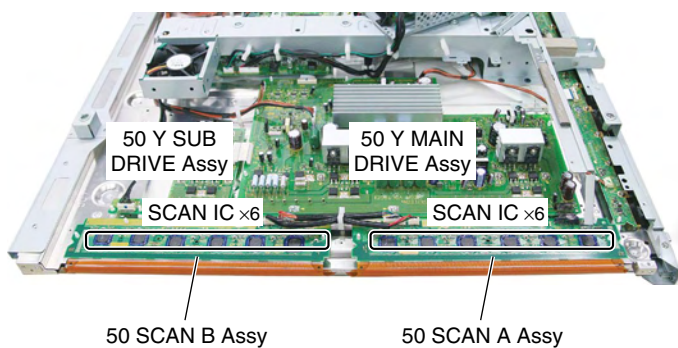
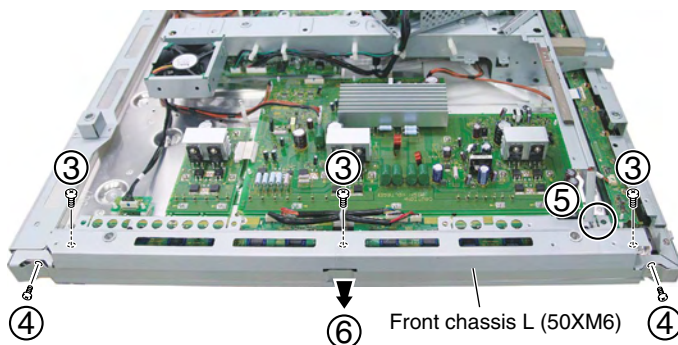


A 5 Exchange of SCAN IC

- ① Remove the six screws.
- ② Remove the two panel holders (50XM6).



- ③ Remove the three screws.
- ④ Remove the two screws.
- ⑤ Unhook the one hook.
- ⑥ Remove the front chassis L (50XM6).



Exchange

7. ADJUSTMENT



PARTS CHANGE OF NOTES

1. At shipment, the unit is adjusted to its best conditions. Normally, it is not necessary to readjust even if an assembly is replaced. If the adjustment is shifted or if it becomes necessary to readjust because of part replacement, etc., perform the adjustment as described below.
2. Any value changed in Service/Factory mode will be stored in memory as soon as it is changed. Before readjustment, take note of the original values for reference in case you need to restore the original settings.
3. Use a stable AC power supply.

7.1 ADJUSTMENT REQUIRED WHEN THE SET IS REPAIRED OR REPLACED

■ When any of the following assemblies is replaced

POWER SUPPLY Unit	➡	Refer to "7.3 HOW TO CLEAR HISTORY DATA" and "7.6 PROCEDURE WHEN REPLACING THE POWER SUPPLY UNIT".
DIGITAL Assy	➡	Writing of backup data is require. Refer to the "7.2 BACKUP OF THE ADJUSTMENT DATA"
50X MAIN DRIVE Assy	➡	No adjustment required
50X SUB DRIVE Assy	➡	No adjustment required
50Y MAIN DRIVE Assy	➡	No adjustment required
50Y SUB DRIVE Assy	➡	No adjustment required
Service Panel Assy	➡	Refer to the "7.3 HOW TO CLEAR HISTORY DATA" and "7.4 EXCHANGE THE SERVICE PANEL"
MAIN Assy	➡	Refer to the "7.2 BACKUP OF THE ADJUSTMENT DATA" and "8. SERVICE FACTORY MODE"
SENSOR Assy	➡	Writing of backup data is require. Refer to the "7.2 BACKUP OF THE ADJUSTMENT DATA"
Other assemblies	➡	No adjustment required

■ When any part in the following assemblies is replaced

Notes on replacing parts

For the parts described in the list below, replacement is required for the whole Assy, not only the defective part.

- A If any part listed below is identified as defective and needs replacement, replace the whole Assy, and make necessary adjustments after replacement.

Reason: The whole Assy must be replaced, because adjustments and data rewriting for the Assy at the level of production line are required.

Assy No.	Assy Name	Parts that Require Whole-Assy Replacement		
		Ref No.	Function Name	Part No.
A B	50 DIGITAL Assy	IC3151	Module microcomputer	AGC1011
		IC3401	Sequence IC	PEG239A
		IC3301	Flash memory	AGC1009
		IC3156	EEPROM	BR24L04FJ-W
AWW1140	SENSOR Assy	IC3652	EEPROM	BR24L02FJ-W
AWW1199	MAIN Assy	IC9508	EEPROM	24LC128 (I) SN

C	POWER SUPPLY Unit	➡	The assembly must be replaced as a unit, and no part replacement is allowed.
	DIGITAL Assy	➡	No adjustment is required after replacement of parts other than those mentioned above.
	50X MAIN DRIVE Assy	➡	No adjustment is required after replacement of parts other than those shown in "7.5 ADJUSTMENTS WHEN THE DRIVE ASSYS ARE REPLACED".
	50X SUB DRIVE Assy	➡	No adjustment required
D	50Y MAIN DRIVE Assy	➡	No adjustment is required after replacement of parts other than those shown in "7.5 ADJUSTMENTS WHEN THE DRIVE ASSYS ARE REPLACED".
	50Y SUB DRIVE Assy	➡	No adjustment required
	MAIN Assy	➡	The assembly must be replaced as a unit, and no part replacement is allowed except the part of note 1.
E	SUB Assy	➡	The assembly must be replaced as a unit, and no part replacement is allowed except the part of note 2.
	SENSOR Assy	➡	No adjustment is required after replacement of parts other than those mentioned above.
	Other assemblies	➡	The assembly must be replaced as a unit, and no part replacement is allowed.

Note 1: MAIN Assy

IC500, IC5002, IC5004, IC5005, IC5007, IC5008, IC5301, IC5304, IC5305, IC5307,
IC5603-IC5606, IC5902, IC5903, IC5904, IC9504, IC6301, IC6302, IC6304,
IC8002, IC8003, IC8501, X8001, X8002, X9501

Note 2: SUB Assy

IC3001, IC3002, IC3004,
IC2301, U2401, Q2301, Q2302

7.2 BACKUP OF THE ADJUSTMENT DATA

7.2.1 BACKUP WHEN THE DIGITAL ASSY REPLACES

Outline

Adjustment data are stored in the EEPROM (IC3156) on the DIGITAL Assy in the production process. Those adjustment data are also automatically stored in the EEPROM (for backup: IC3652) on the SENSOR Assy. If the DIGITAL Assy is replaced, those adjustment data for backup can be copied from the EEPROM on the SENSOR Assy to a new DIGITAL Assy.

Backed up data

- Drive voltage adjustment value
- Hour-meter count
- Pulse-meter count
- Panel white balance adjustment value
- Serial No.
- Drive waveform adjustment value
- P-ON counter value
- PD/SD histories

How to copy backup data

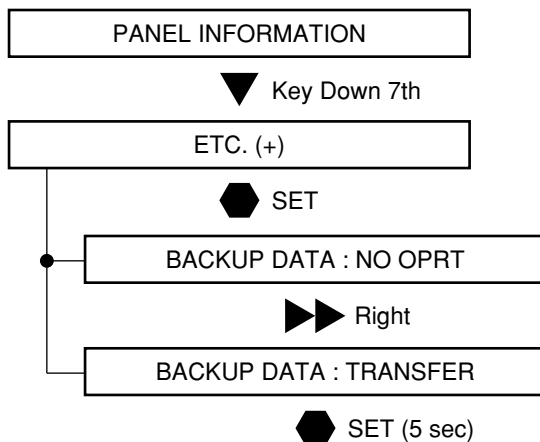
1. When the DIGITAL Assy is replaced with one for service (usual service)

Adjustment data can be restored by copying the data backed up in the SENSOR Assy to the EEPROM on a new DIGITAL Assy.

The EEPROM on the new DIGITAL Assy has no adjustment data, and the EEPROM for backup in the SENSOR Assy has adjustment data. After replacing the DIGITAL Assy, enter PANEL FACT. mode, display the PANEL INFORMATION page, then check if "NO DATA!" is set for "DIG. EEP" and "ADJUSTED" is set for "BACKUP". Then, proceed in the following steps:

(1) Copying, using the Factory menu

- ① Plug in the AC cord, press the Power switch on the unit to set it to ON, then enter Standby mode.
- ② Turn on the power, using the remote control unit, then enter Panel Factory mode.
Copy the backup data, as shown in the figure below.



- ③ Turn the power off.
 - If copying of the backup data fails in the above procedure, the red LED lights, and the blue LED flashes, as a warning that no backup data were copied.
 - If both the DIGITAL and SENSOR Assys are to be replaced, first replace the SENSOR Assy, turn the unit on and back off again, then replace the DIGITAL Assy.

(2) Copying, using the RS-232C commands

- ① Turn on the unit, using the remote control unit or by issuing the PON command. Then issue the FAY command.
- ② Issue the BCP command to transfer the data stored in the EEPROM for backup.
- ③ Turn the power off.

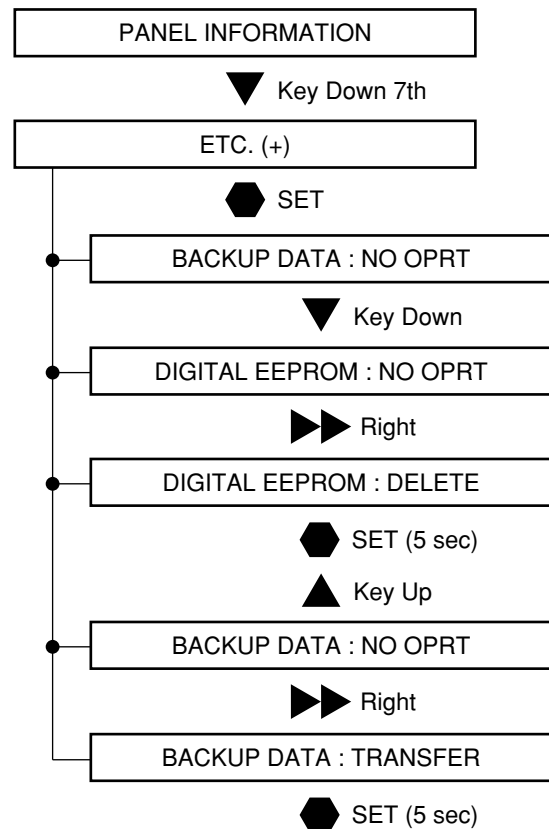
2. When a secondhand DIGITAL Assy that had been mounted in another product is to be reused

As adjustment data for another product are already stored in the secondhand DIGITAL Assy, first delete those data then copy the backup data stored in the EEPROM on the SENSOR Assy.

(1) Copying, using the Factory menu

- ① Plug in the AC cord, press the Power switch on the unit to set it to ON, then enter Standby mode.
- ② Turn on the power, using the remote control unit, then enter Panel Factory mode.

Copy the backup data, as shown in the figure below.



- ③ Turn the power off.

Note:

If the secondhand DIGITAL Assy is mounted in the product then the unit is turned on then back off again, the data in the EEPROM on the DIGITAL Assy are copied over the EEPROM in the SENSOR Assy. Thus the backup data can never be restored. During the first power-on after the DIGITAL Assy is replaced, be sure to enter Factory mode to copy the backup data. Or, before removing the secondhand DIGITAL Assy from the original product, delete the adjustment data on it, using the Factory mode (DIGITAL EEPROM: DELETE), mount it to the product to be repaired, then copy the data from the backup EEPROM.

(2) Copying, using the RS-232C commands

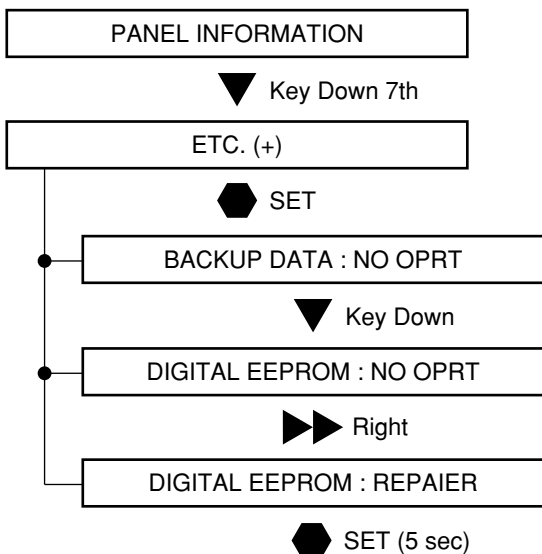
- ① Turn on the unit, using the remote control unit or by issuing the PON command. Then issue the FAY command.
- ② Issue the UAJ command to delete data stored in the EEPROM on the DIGITAL Assy.
- ③ Issue the BCP command to transfer the data stored in the EEPROM for backup.
- ④ Turn the power off.

3. In a case where normal backup data are not stored in the backup EEPROM because the EEPROM on the DIGITAL Assy is defective, etc., and where manually adjusted values are to be applied to the product

Note: In this section, it is assumed that settings for various items have been completed, using Factory menu or RS-232C commands.

(1) Method using the Factory menu

- ① Set various setting/adjustment values.
- ② Proceed in the following steps.



- ③ Turn the power off.

Note:

When a DIGITAL Assy with an EEPROM in which adjustment data are stored is mounted, this step is not required after manual adjustment. ("DIGITAL EEPROM: REPAIR" is not indicated.)

(2) Method using the RS-232C commands

Issue the FAJ command.

■

■ Data to be backed up

- A
- Hour-meter of product
 - Serial No of product
 - User adjustment value
(It became an initial value when entering the integrator mode.)
 - Integrator adjustment value

■

■ How to Copy Backup Data

1. System Requirements for the PC and PC settings

Operation environment

PC with Windows 95/98/Me or Windows NT/2000/XP installed, and with one or more serial ports.

Note: According to specifications of hardware, the baud rate setting may be limited.

File structure

B

MCUT22SPio_E.exe	Executable file for the utility (English version)
MCU_DATA.INI	MCU data file
MCU_01.INI	MCU information file

■

Installation of software for rewriting

Create a folder and copy the following files into that folder:

- C
- MCUT22SPio_E.exe
 - MCU_DATA.INI
 - MCU_01.INI

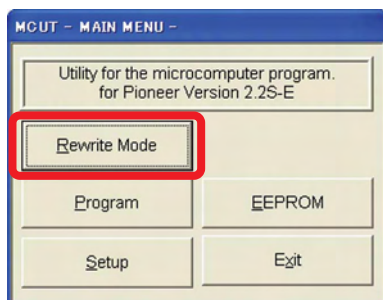
2. Connect the PC to the PDP.

Use an RS-232C straight cable.

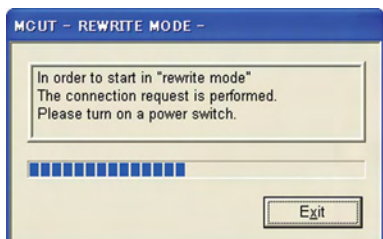
3. Set the Main Power switch of the PDP to OFF.

■ Read Out the Adjustment Data

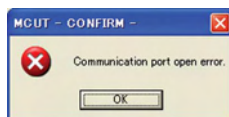
- (1) Click on MCUT2SPio_E.exe to start the program.
The following screen will open:



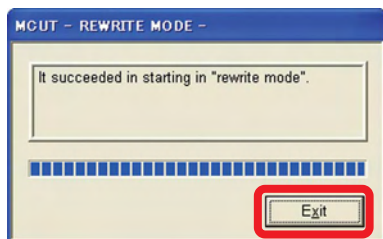
- (2) Click on [Rewrite Mode].
The following screen will open:



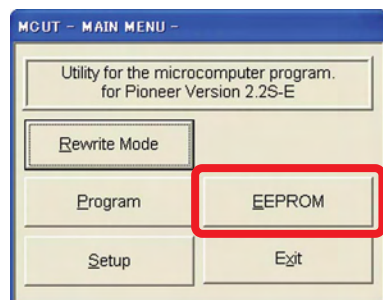
Note: If the following error message is displayed, click on [OK]. Then click on Setup for COM port settings.
See the reference "SETUP screen (default settings)" described at the end of the procedures.



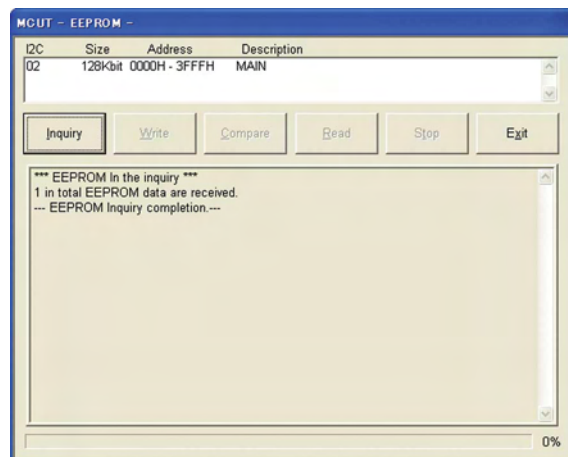
- (3) Set the Main Power switch of the PDP to ON.
(4) After the message "It succeeded in starting in "rewrite mode". is displayed, click on [Exit].



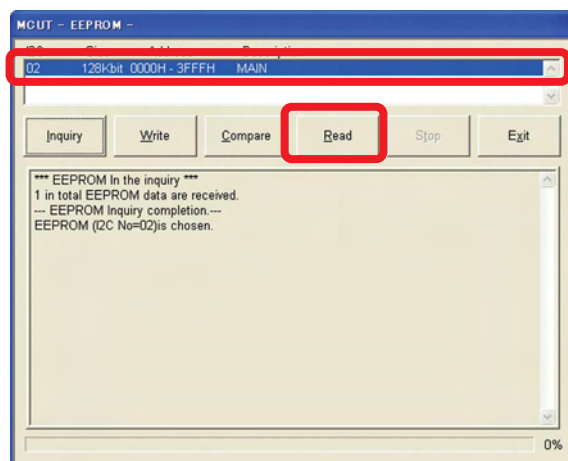
- (5) The MAIN MENU returns.



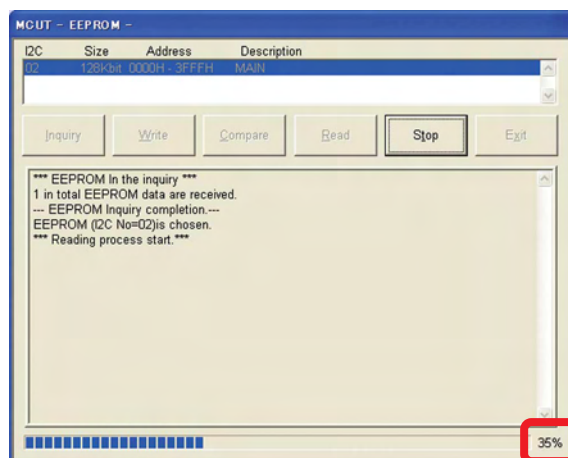
- (6) Click on [EEPROM]. The following screen will open:



- (7) Click on the following address indication to select it:



- (8) Click on [Read]. The Save As window will open.
Designate a filename (extension: .EEP) then click on Save.

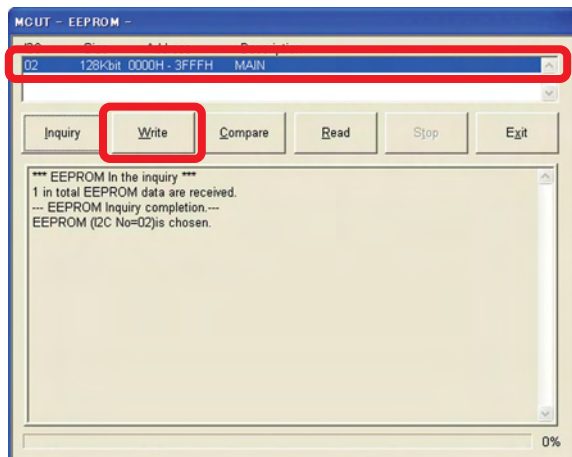


When reading is completed, the figure becomes 100%. The Reading Completed window is displayed. To display the content of the data that have been read out, click on Yes. If displaying is not required, click on No.

Write in the Backup Data

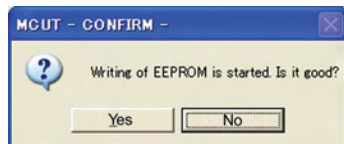
- A Write in the backed up setting data of the main unit.
Proceed from (1) to (6) of Step 4 to enter Rewrite Mode and open the EEPROM window.

(1) Click on the following address indication to select it:

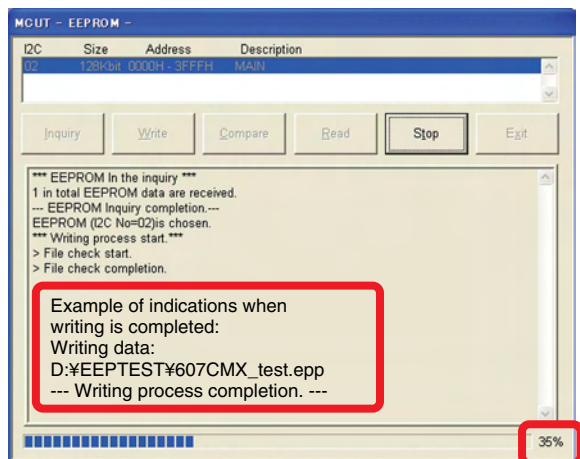


- (2) Click on [Write]. The Open File window will open.
Select the backed up data (extension: .eep), then click on [Open].

Confirmation of start of writing to the EEPROM

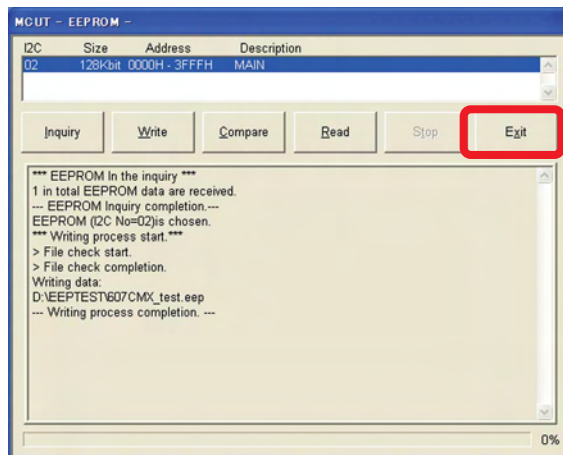


- (3) The message "Writing of EEPROM is started. Is it good?" is displayed. Click on Yes. Writing starts, as shown below:

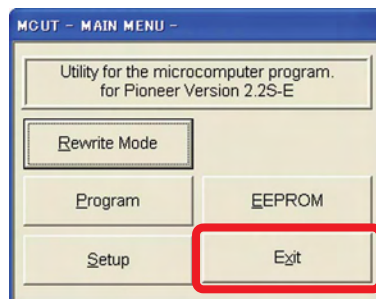


- (4) When the figure becomes 100% and the message "Writing is completed" is displayed, writing is completed. Check if the filename for the written data is correct.

(5) Click on [Exit].

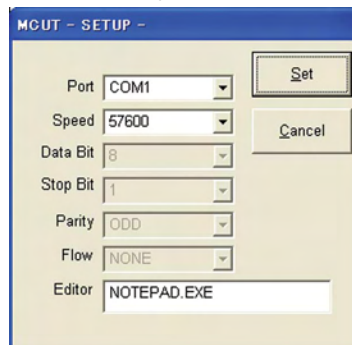


(6) Click on [Exit].



- (7) Set the Main Power switch of the PDP to OFF (LED goes dark) then back to ON.
(8) The writing procedures are finished.

Reference: SETUP screen (default settings)
Once you click on [Setup] on the MAIN MENU, the following screen is displayed:



1-2-1) Port

Select the communication port (COM1-COM4). The initial setting is COM1. Select the COM port to which the PC is connected.

1-2-2) Speed (Baud rate)

Always set it to 57600 (initial setting). Communication is not possible with any baud rate other than 57600.

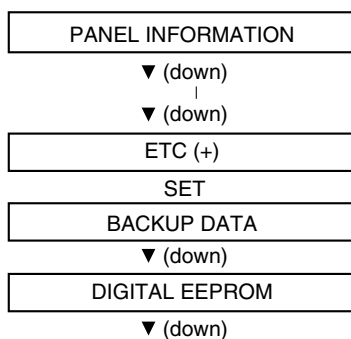
7.3 HOW TO CLEAR HISTORY DATA

About clearing log data after an Assy replacement

In the backup EEPROM of the DIGITAL Assy, besides adjustment values of the main unit, data on power-on time and log data on defective parts, etc. are updated and stored. Among those data, some need to be cleared when the DIGITAL Assy is replaced during servicing.

Item	Content	Services			RS-232C Command
		Panel replacement	Power unit replacement	Other than those at left	
Hour meter	Accumulated display time	Clearing required	Clearing not required	Clearing not required	CHM
Shutdown logs	Location where an SD was generated and the hour-meter value at that time	Clearing required	Clearing not required	Clearing not required	CSD
Power-down logs	Location where a PD was generated and the hour-meter value at that time	Clearing required	Clearing not required	Clearing not required	CPD
Pulse meter	Accumulated number of pulse emissions (Block 5)	Clearing required	Clearing not required	Clearing not required	CPM
Power-on count	Accumulated RELAY_ON counts	Clearing not required	Clearing required	Clearing not required	CPC
MAX TEMP	In the past the greatest temperature	Clearing required	Clearing required	Clearing required	CMT

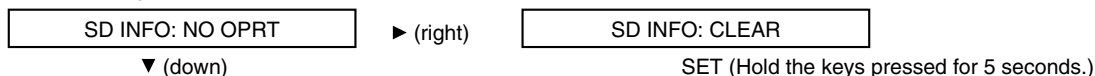
- (1) To clear the data using RS-232C commands, first send the FAY command to enter Factory mode, then send a command shown in the table above.
- (2) To clear the data using the Factory menu, first display the Factory menu by pressing the keys in the following step:
Press **DISPLAY** key → Don't press any keys for 3 seconds →
Press the keys in the following order: **LEFT, UP, LEFT, RIGHT**, then **POWER**.



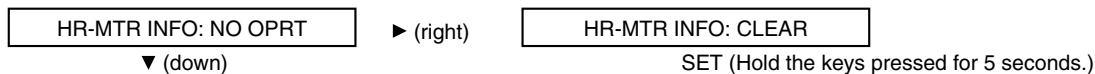
To clear PD logs



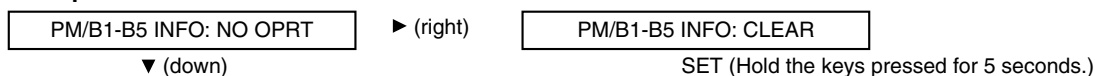
To clear SD logs



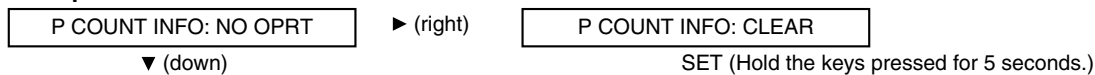
To clear hour meter data



To clear pulse meter data



To clear power-on-count data



To clear MAX TEMP



7.4 EXCHANGE THE SERVICE PANEL

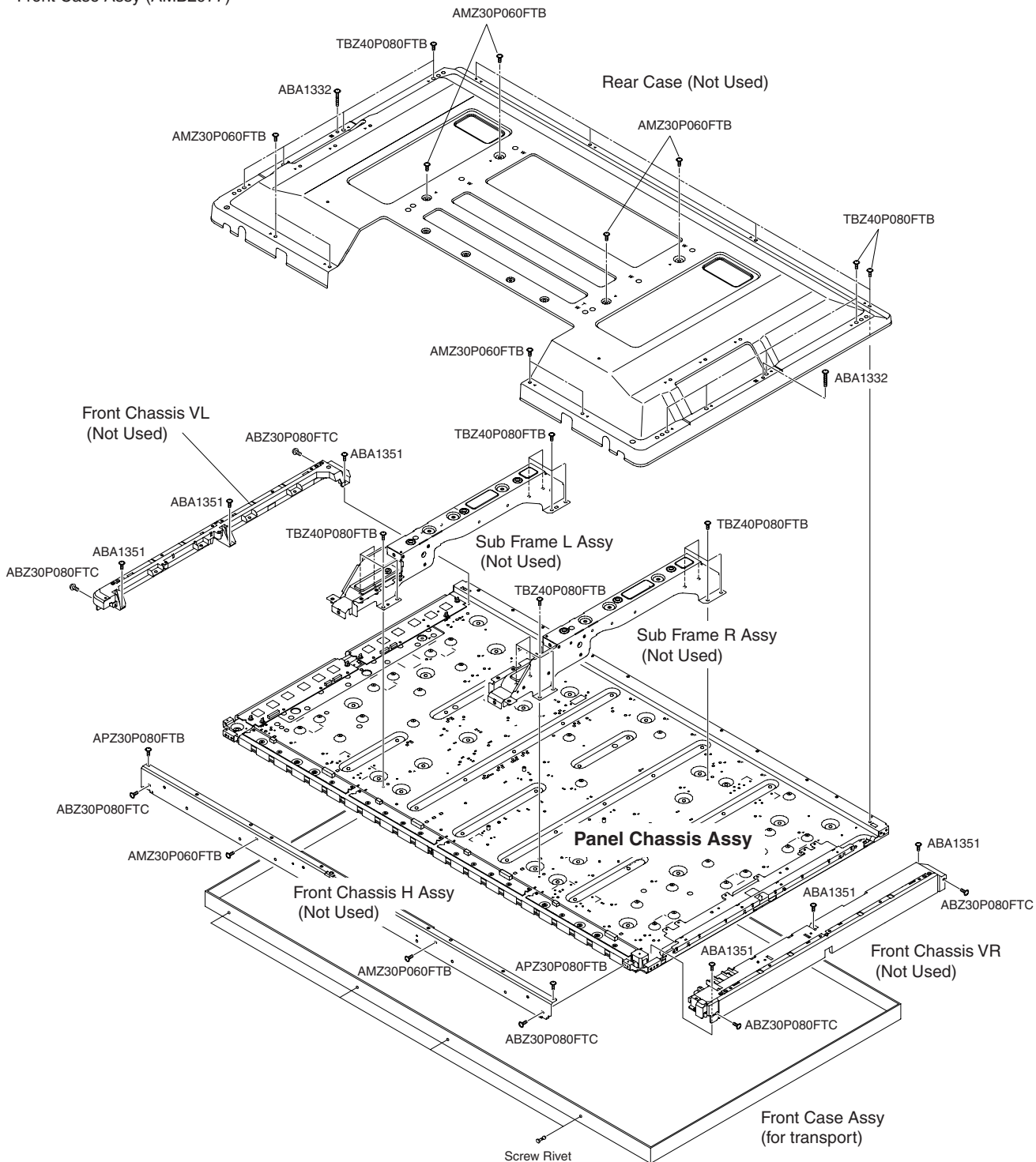
7.4.1 ATTENTION WHEN SERVICE PANEL ASSY IS REPLACED

The following parts of service panel assy are not used.

- Front Chassis VL (AMA1014)
- Front Chassis VR (AMA1022)
- Sub Frame L Assy (ANA1945)
- Sub Frame R Assy (ANA1946)
- Front Chassis H Assy (ANA2058)
- Rear Case (ANE1656)
- Front Case Assy (AMB2977)

Parts to fix the wire etc. are packed as an accessory. Refer to "2.EXPLODED VIEWS AND PARTS LIST".

Please remove the Re-use PCB spacer (AEC2087) from exchanged panel chassis assy, and reuse it to assemble the PCB ASSY.

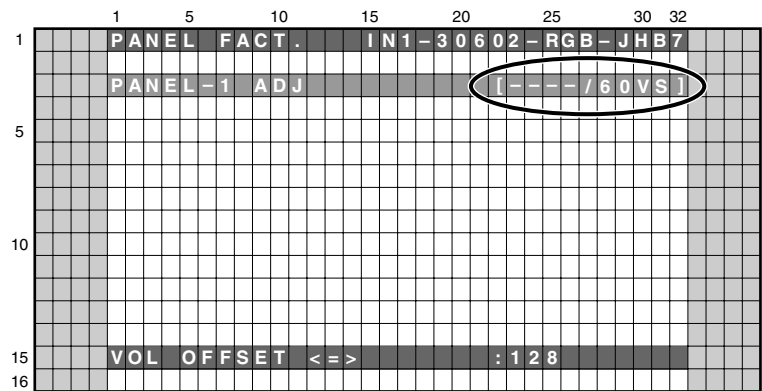


Flowchart for panel replacement

After replacing the panel with one for service, readjustment of the Vofs voltage margin is required.

[Preparations]

- Basically, the Panel Factory menu is used for the voltage margin adjustment.
- The 60-Hz video sequence is used as the drive sequence.
- While adjusting the voltage margin using the Panel Factory menu, the current drive sequence is indicated on the screen, as shown below. Make sure that "60VS" is always indicated during adjustment.



Example of the OSD while the Panel Factory menu is displayed

[Supplement]

- When the raster mask for margin adjustment is displayed during Panel Factory mode, the Panel White Balance is set to default, and the Panel Gamma is set to Straight in the "PANEL-1 ADJ" layer. On the third line, the OSD reads "- - - /****" (**** stands for the type of the drive sequence set).

- If you perform adjustment using RS-232C commands, use the commands shown below. These commands are different from those used during Factory Menu mode.

- PAV S00 : Used to set the Panel Drive mode to Factory.
- VFQ S03 : Used to set the Drive Sequence to Video 60 Hz.
- WBI S01 : Used to temporarily set the adjustment value of the Panel WB to default. (To return the value to its original value, use WBI S00.)
- PGM S00 : Used to set the gamma setting to Factory.

Note: If the power is shut off in the process of the adjustment procedures, send the above commands again.

OUTLINE

A

Mode switching

Switch modes to start the voltage adjustment, as follows:

Enter Factory mode.

Display RST MASK 01 (white).

FAY

MKS S51



Voltage setting

Set Vsus and Vyprst, and tentatively set Vofs:

VOL SUS : Set to 137 (205[V]).

VOL RST P : Set to the voltage indicated on the panel label.

VOL OFFSET : Tentatively set to the voltage indicated on the panel label.

VSU137

VRP***

VOF***



Aging

Perform aging with the fully white screen for 30 minutes

To prevent an error caused by the temperature characteristics and to let the unit show its full properties after letting it sit, perform aging for 30 minutes to raise the panel temperature to a certain extent. This ensures the accuracy of inspection and adjustment.



Actual Vofs adjustment (② to ④)

Measuring the upper limit of Vofs

Signals to be measured: red 760, red 1023+, green 1023, and blue 1023

Vofs setting

In a case where the upper limit of Vofs is less than 49:
Vofs set voltage = Upper limit value of Vofs - 9 [V]

In a case where the upper limit of Vofs is 49 or more:
Vofs set voltage = 40 [V]



CA check with black

With the black mask displayed, check if there are stationary or horizontally moving lit cells.



Confirmation of settings

Check that each voltage value is correctly set.



Command transfer

After the voltage adjustment is finished, make the following settings:

Mask: OFF, Factory: OUT



CA check

Check that the picture is properly displayed.

Use DVD, LD, and broadcast signals for checking.

Ranges of the adjustable voltages

(Ranges of the adjustable voltage when the upper and lower limits of each voltage are to be checked in this flowchart)

Vsus = 205 [137] [V]

Vofs = 15 [005] to 60 [246] [V]

Vyprst = 250 [013] to 300 [128] [V]

Vxnrst = 180 [V]

Vh = 130 [V]

Vadr = 60 [V]

Ranges of the voltage settings

(Ranges of voltage settings for this unit)

Vsus = 205 [137] [V]

Vofs = 28 [075] to 48 [182] [V]

Vyprst = 260 [036] to 300 [128] [V]

Vxnrst = 170 [V]

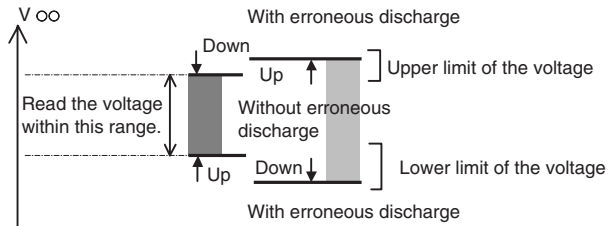
Vh = 130 [V]

Vadr = 60 [V]

When calculating the voltage, **round off the fractional part.**

(For circuit protection, it is desirable to set the voltage to a lower value.)

For margin measuring, be sure to read the value within the hysteresis (stricter value).



The Definition of Abnormal Cells

Abnormal bright cells: Within five cells on screen.

(fewer than 2 cells within a radius of 1 cm)

Abnormal dark cells: Under fifteen cells on screen.

(fewer than 2 cells within a radius of 1 cm)

Count abnormal cells at a distance of 1 m from panel.

If abnormal cells won't occur longer than one second, do not count the abnormal cells.

Do not count still dark cells and bright cells.

Standard settings of the unit at shipment:

Vsus setting = 205 [137] [V]

Vsus margin = 17 [V] or more

Vofs setting = 28 [075] to 48 [182] [V]

Vofs margin = 19 [V] or more

Vyprst setting = 260 [036] to 300 [128] [V]

Note: The voltages in the flowcharts are given in absolute values (without \pm).

① Preparations

Initial setting

After turning the unit on, enter Factory mode. FAY

with command
PAV S00
VFQ S03
WBI S01
PGM S00

Display RST MASK 01 (white). MKS S51

Voltage setting

Set VOL SUS to 137 ($V_{sus} = 205\text{ V}$).

VOL RST P: Set to the voltage indicated on the panel label.
(See the conversion table for the electronic VR.)

VOL OFFSET: Tentatively set to the voltage indicated on the
panel label. (See the conversion table for the electronic VR.)

Aging

Perform aging with the fully white screen for 30 minutes

Note:

To prevent an error caused by the temperature characteristics and to let the unit show its full properties after letting it sit, perform aging for 30 minutes to raise the panel temperature to a certain extent. This ensures the accuracy of inspection and adjustment.

(To ②)

② Actual Vofs adjustment (1)

A

(From ①)

(Check Vofs_max1 with the red 760 signal.)

Perform aging with RST MASK 01 (white) displayed for 3 seconds: MKS S51

Set to RST MASK 09 (red 760). MKS S59

Set VOL OFFSET to 246 (60 [V]). VOF 246

B

Are there any dark cells?

No

Set Vofs_max1 to 246 (60 [V]).

Yes

Gradually decrease Vofs data until dark cells disappear (Vofs should be 005 (15 [V]) or more). VOF ***

Note:

This setting value becomes the value for Vofs_max1.

Vofs_max1

_____ [V]

Note: Take note of the value for Vofs_max1.

Is Vofs_max1 118 (36 [V]) or greater?

No

Replace the panel again or abnormality in circuits

Yes

⊕

C

Return the Vofs value to the tentative voltage setting. VOF ***

Note:

This is for checking the lower limit of Vofs accurately.

(Check Vofs_max2 with the red 1023+ signal.)

Perform aging with RST MASK 01 (white) displayed for 3 seconds: MKS S51

Set to RST MASK 19 (red R1023+). MKS S69

Set VOL OFFSET to 246 (60 [V]). VOF 246

D

Are there any dark cells?

No

Set Vofs_max2 to 246 (60 [V]).

Yes

Gradually decrease the Vofs data until dark cells disappear (Vofs should be 005 (15 [V]) or more). VOF ***

Note:

This setting value becomes the value for Vofs_max2.

Vofs_max2

_____ [V]

Note: Take note of the value for Vofs_max2.

Is Vofs_max2 118 (36 [V]) or greater?

No

Replace the panel again or abnormality in circuits

Yes

⊕

E

Return the Vofs value to the tentative voltage setting.

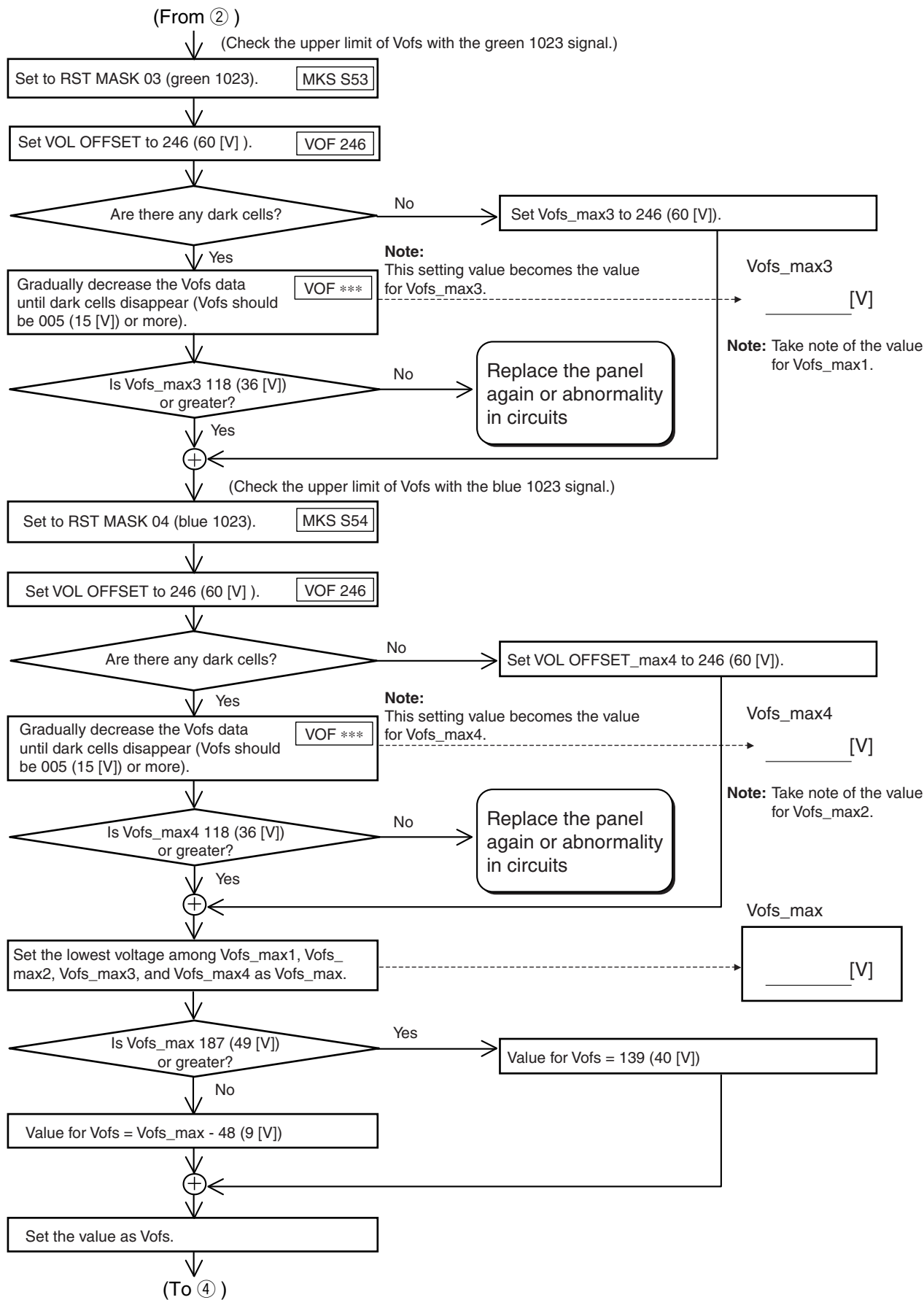
Note:

This is for checking the lower limit of Vofs accurately.

F

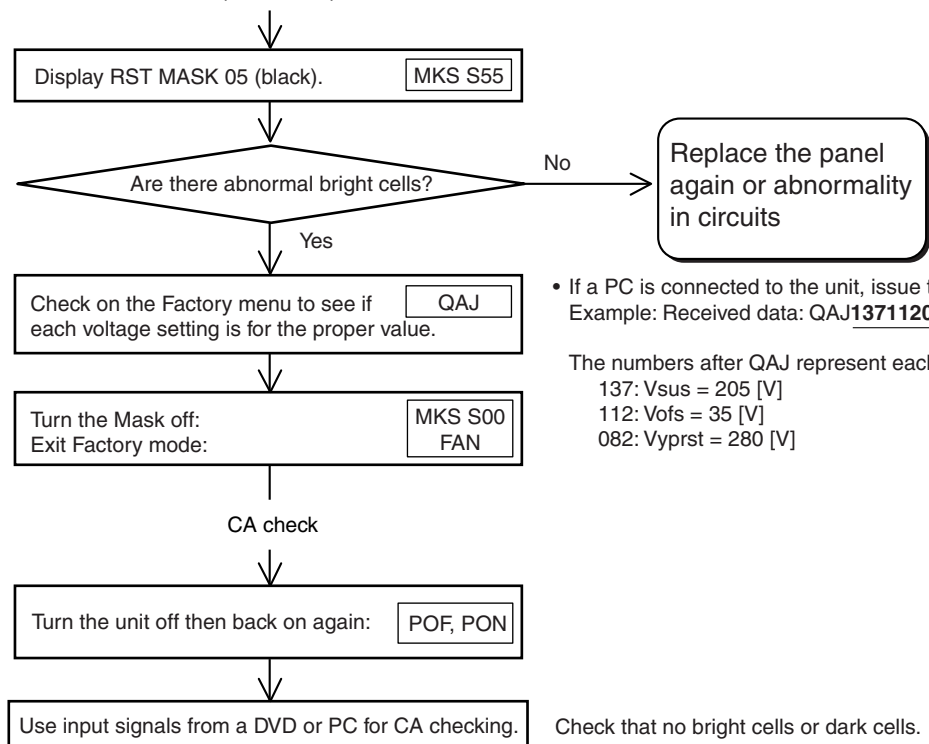
(To ③)

③ Actual Vofs adjustment (2)



④ Actual Vofs adjustment (3)

(From ③)



- If a PC is connected to the unit, issue the QAJ command to check each voltage.
Example: Received data: QAJ**137112082**1281281281281283304D

The numbers after QAJ represent each voltage after adjustment, as follows:

137: Vsus = 205 [V]
112: Vofs = 35 [V]
082: Vyprst = 280 [V]

■ Conversion charts for electronic VRs (Vprst/Vofs)

Vprst [V]	Setting value [STEP]
250	013
251	015
252	018
253	020
254	022
255	024
256	027
257	029
258	031
259	034
260	036
261	038
262	040
263	043
264	045
265	047
266	050
267	052
268	054
269	056
270	059
271	061
272	063
273	066
274	068
275	070
276	073
277	075
278	077
279	079
280	082
281	084
282	086
283	089
284	091
285	093
286	096
287	098
288	100
289	102
290	105
291	107
292	109
293	112
294	114
295	116
296	119
297	121
298	123
299	126
300	128

Vofs [V]	Setting value [STEP]
15	005
16	011
17	016
18	021
19	027
20	032
21	037
22	043
23	048
24	054
25	059
26	064
27	070
28	075
29	080
30	086
31	091
32	096
33	101
34	107
35	112
36	118
37	123
38	128
39	134
40	139
41	144
42	150
43	155
44	160
45	166
46	171
47	176
48	182
49	187
50	192
51	198
52	203
53	208
54	214
55	219
56	224
57	230
58	235
59	240
60	246

1 2 3 4

7.5 ADJUSTMENTS WHEN THE DRIVE ASSYS ARE REPLACED

■ **Waveform adjustments required when replacing the following parts of the 50X MAIN DRIVE and 50Y MAIN DRIVE Assys.**

A

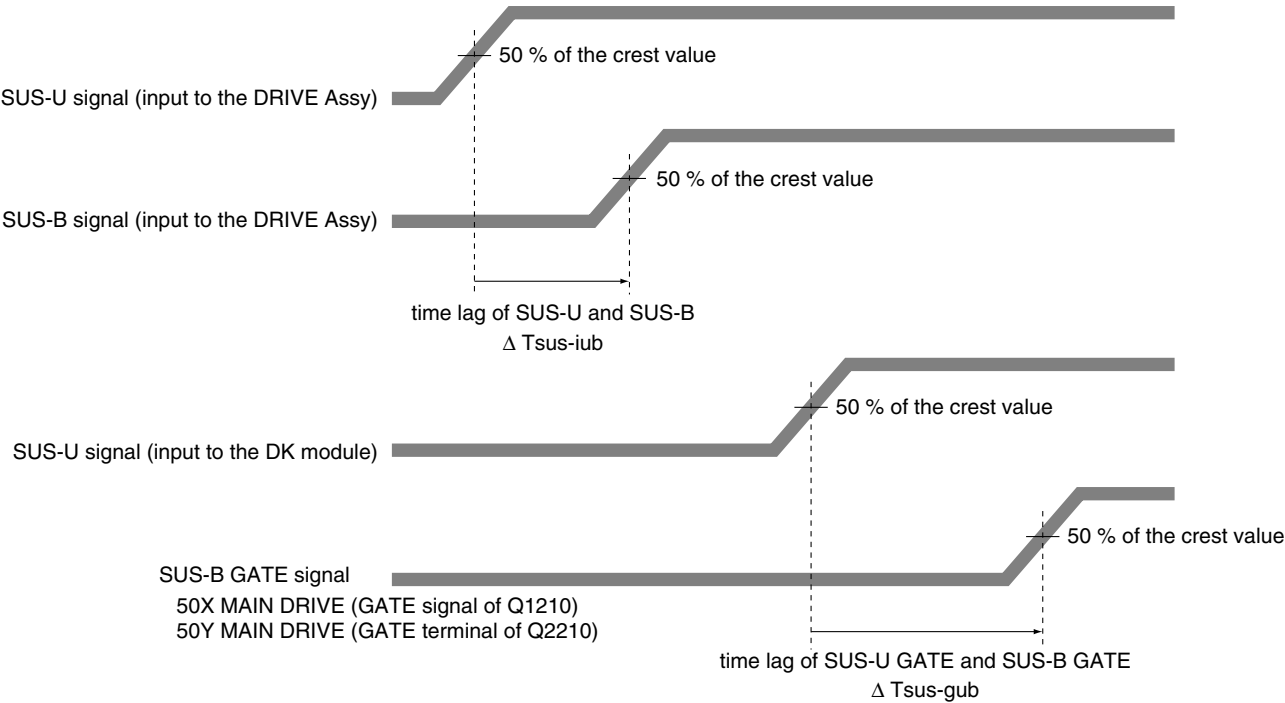
Assy Name	Ref No.	Part Name	Part Category	Remarks
50X MAIN DRIVE Assy	IC1205	PS9117P	Photo Coupler	
	IC1204	TND307TD	FET Driver	
50Y MAIN DRIVE Assy	IC2104	TND307TD	FET Driver	
	IC2209	PS9117P	Photo Coupler	
	IC2208	TND307TD	FET Driver	

B

■ **TIME LAG ADJUSTMENT OF THE CONTROL SIGNAL (SUS-B)**

- ① Measure the time lag for the SUS-U signal to the SUS-B signal.
 - ② Check the time lag for the SUS-B GATE signal to the SUS-U GATE signal.
Adjust the variable control so that the time lag of GATE becomes " time lag of input signal + $\alpha \pm 5$ nsec."
- Note:** For details on measuring points of waveform, see the figure below.

C



D

E

time lag of SUS-U gate and SUS-B gate : ΔTsus-gub
Adjust so that "ΔTsus-gub = ΔTsus-iub + $\alpha \pm 5$ nsec," using the variable controls shown in the table below:

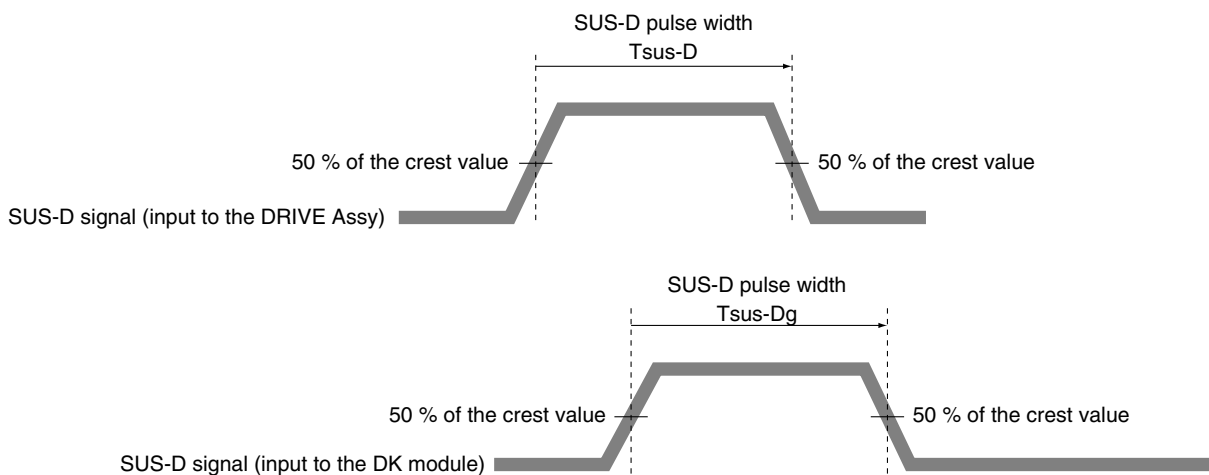
Assy	VR	Value of α
50X MAIN DRIVE ASSY	VR1001	70 nsec
50Y MAIN DRIVE ASSY	VR2001	50 nsec

F

■ DELAY ADJUSTMENT OF THE CONTROL SIGNAL (SUS-D)

- ① Measure the pulse width of the SUS-D signal.
- ② Check the pulse width of the SUS-D input signal for the DK module.
Adjust the variable control so that the pulse width of the SUS-D input signal for the DK module becomes the "pulse width of the SUS-D signal ± 5 nsec."

Note: For details on measuring points of waveform, see the figure below.



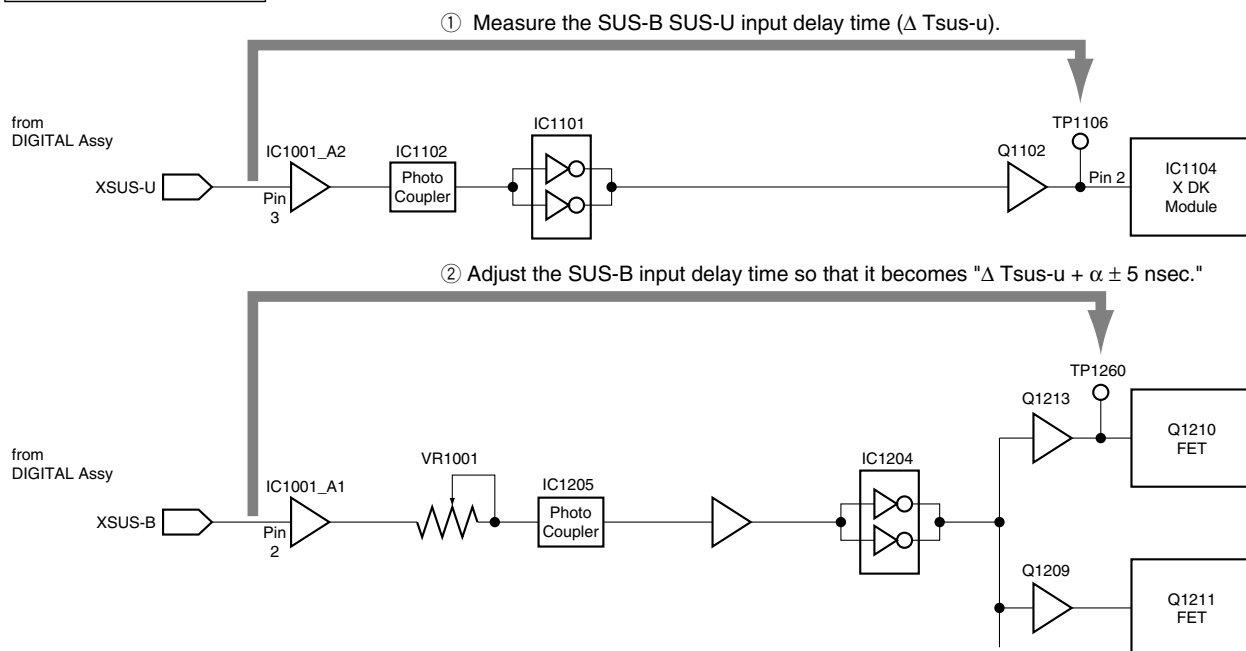
SUS-D pulse width: T_{sus-Dg}

Adjust so that " $T_{sus-Dg} = T_{sus-D} \pm 5$ nsec," using the variable control shown in the table below:

Assy	VR
Y MAIN DRIVE	VR2002

■ SUS-B ADJUSTMENT

X DRIVE Assy

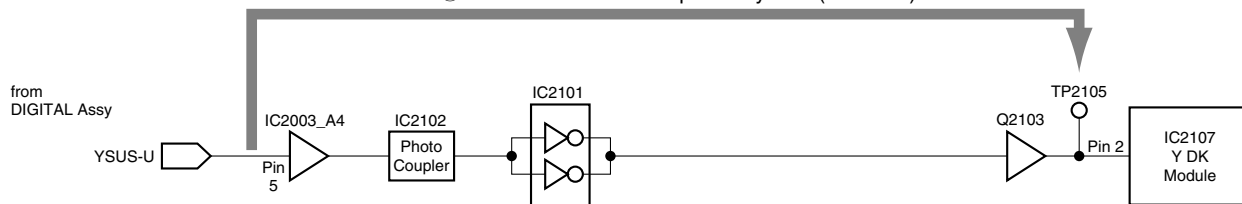


SUS-B ADJUSTMENT

A

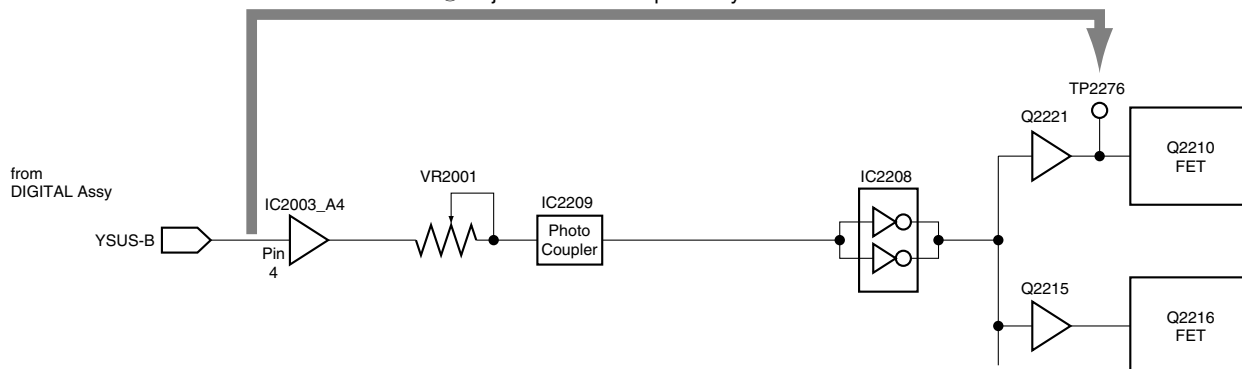
50Y MAIN DRIVE Assy

① Measure the SUS-U input delay time (ΔT_{sus-u}).



B

② Adjust the SUS-B input delay time so that it becomes " $\Delta T_{sus-u} + \alpha \pm 5 \text{ nsec.}$ "



C

SUS-D ADJUSTMENT

50Y MAIN DRIVE Assy

① Measure the SUS-D pulse width (T_{sus-D}).

② Adjust the pulse width of the SUS-D input signal for the DK module so that it becomes " $T_{sus-D} \pm 5 \text{ nsec.}$ "



D

E

F

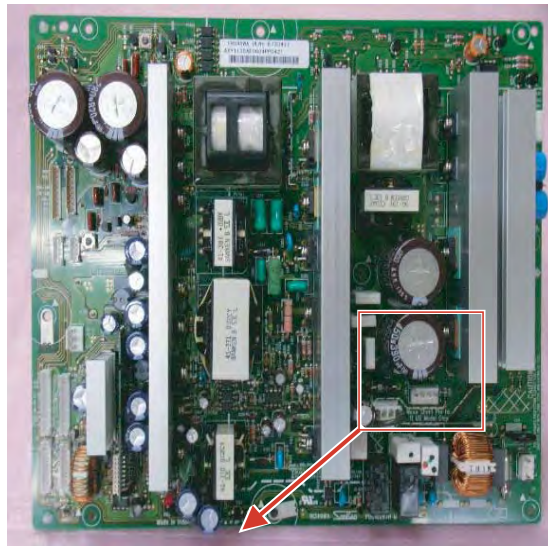
7.6 PROCEDURE WHEN REPLACING THE POWER SUPPLY UNIT

■ Procedure of Changing Jumper Connector after replacing the Power Supply Unit

When replacing the Power Supply Unit, it is necessary to perform the following connector changes.

Otherwise the unit cannot work properly and the unit may be damaged.

Therefore perform these connector settings without fail when replacing the Power Supply Unit. (before power on the unit)

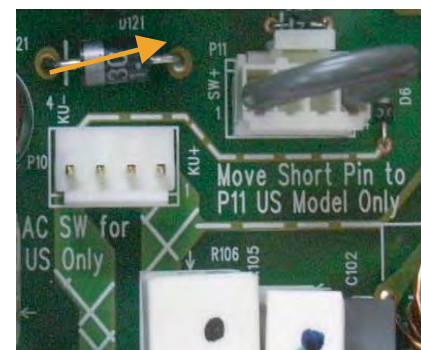


Location of the jumper connector

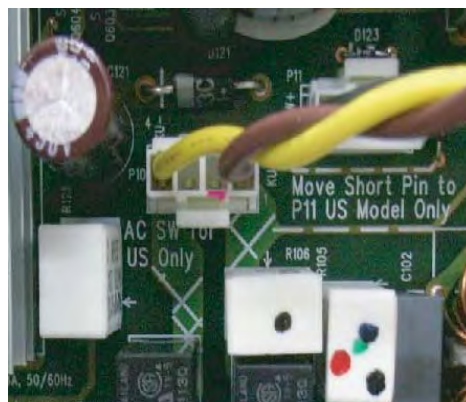
1. As for service parts, the Jumper connector is connected at connector P10.



2. Remove the jumper connector from connector P10 and connect it to connector P11.



3. Connect the cable connector from power SW to P10.



1234

8. SERVICE FACTORY MODE

8.1 SERVICE FACTORY MODE OUTLINE

A Three Service Factory modes are provided with this unit:

Service Menu Mode:

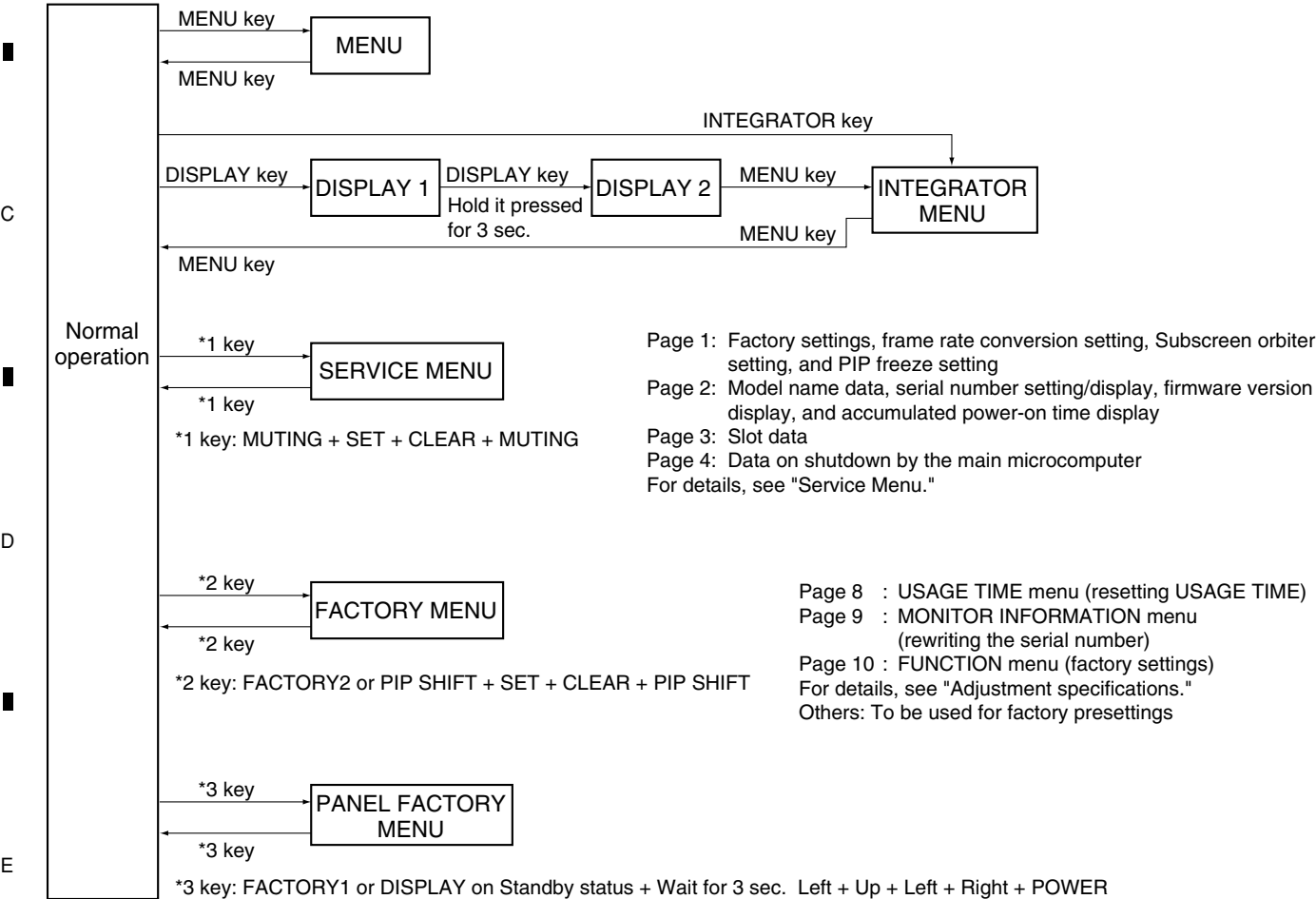
Mainly used for servicing.
Display of shutdown data for the MAIN Assy, serial number, or accumulated power-on time is performed.
When the MAIN Assy is replaced, input the serial number, using this menu.

Factory Menu Mode:

Mainly used for factory presetting.
The mode for line adjustment is displayed. Not for normal use.
When the MAIN Assy is replaced, factory shipment setting is required.

Panel Factory Menu Mode:

B Mainly used for servicing. Display of power-down data inside the module and of accumulated power-on time, MASK ON/OFF, and setting of the Vofs voltage can be performed. When either the MAIN Assy, DIGITAL Assy, Service panel, or power supply unit is replaced, setting is required, using this menu. For details, see "7.2 BACKUP OF THE ADJUSTMENTS DATA", "7.4.2 ADJUSTMENTS WHEN THE SERVICE PANEL ASSY IS REPLACED".



8.2 SERVICE MENU MODE

■ Service menu

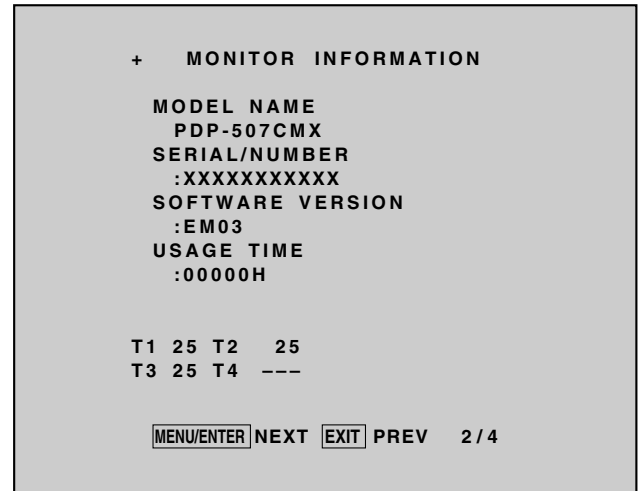
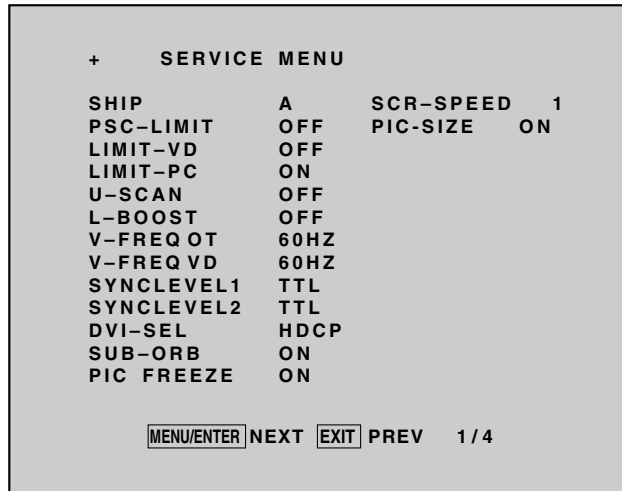
A screen shifts to the Service Menu mode by the next key operation.

Similarly, a screen ends the Service Menu mode by the next key operation.

MUTING + SET + CLEAR + MUTING

CLEAR : The key which moves to a next page group

ID SELECT : The key which moves to a previous page group



■ Contents

Menu	Functions	Item	Default setting			
SHIP (shipment mode)	Selects the place of shipment	A / J / G / GS	A	J	G	GS
PSC-LIMIT(PLE output limit)	Unsupport.	OFF / 1 - 255	OFF	OFF	OFF	OFF
LIMIT-VD(PLE output limit for video)	Unsupport.	ON/OFF	OFF	OFF	OFF	OFF
LIMIT-PC(PLE output limit for PC)	Unsupport.	ON/OFF	ON	ON	ON	ON
U-SCAN(Under scan)	The change function in under-scan mode and over- scan mode.	ON/OFF	OFF	OFF	OFF	OFF
L-BOOST(Luminance boost)	Unsupport.	-	-	-	-	-
V-FREQ OT(Vertical freq. for other)	The AUTO/60Hz change function of Vertical freq. (for other)	AUTO/60HZ	60Hz	60Hz	60Hz	60Hz
	60Hz mode ->convert to 75Hz					
V-FREQ VD(Vertical freq. for video)	The AUTO/60Hz change function of Vertical freq. (for video)	AUTO/60HZ	60Hz	60Hz	60Hz	60Hz
	60Hz mode ->convert to 75Hz					
SYNCLEVEL 1	Unsupport.	-	-	-	-	-
SYNCLEVEL 2	Unsupport.	-	-	-	-	-
DVI-SEL	This setup is for the engineer	HDCP/ORG	HDCP	HDCP	HDCP	HDCP
SUB ORB(Sub picture orbiter)	Set sub picture orbiter to off.	ON/OFF	ON	ON	ON	ON
PIC FREEZE	Picture freeze setting.	ON/OFF	ON	ON	ON	ON
SCR-SPEED(Screen wiper speed)	Unsupport.	1-5	1	1	1	1
PIC-SIZE(Picture size)	Unsupport.	ON/OFF	ON	ON	ON	ON

MODEL NAME

A : PDP-507CMX

J : PDP-507CMX-JP

G : PDP-50MXE20

GS : PDP-50MXE20-S

■ SLOT INFORMATION

A

SLOT INFORMATION

VIDEO SLOT
TYPE : P-5003

3G4G : 4G

DSUBSW : INPUT1

D-FORM : 444-2CH

COMM SLOT

TYPE:P

4G5G:4G

BAUD RATE:VARIABLE

MENU/ENTER NEXT EXIT PREV 3 / 4

B

C

VIDEO SLOT TYPE :

P-5003 (P : made by Pioneer, PDA-5003)

P-5004 (P : made by Pioneer, PDA-5004)

P-CYBER (P : made by Pioneer, CYBER_SLOT)

S-A (S : made by 3rd party, TYPE-A)

S-B (S : made by 3rd party, TYPE-B)

S-C (S : made by 3rd party, TYPE-C)

:

S-J (S : made by 3rd party, TYPE-J)

--- (No slot connection)

+++ (Not defined)

COMM SLOT TYPE :

P (made by Pioneer), S (made by 3rd party)

4G5G : 4G (4th Generation), 5G (5th Generation)

BAUD RATE : VARIABLE (variable)

9600 F (9600bps fixed)

38400 F (38400bps fixed)

D-FORM :

422CBCRW (VIDEO correspondence double locking for 525i/625i)

422CRCBW (VIDEO correspondence double locking for 525i/625i)

422CBCRS (VIDEO correspondence single locking)

422CRCBS (VIDEO correspondence single locking)

444-1 CH (PC/ VIDEO correspondence)

444-2 CH (PC/ VIDEO correspondence)

+++ (Not defined)

DSUBSW : INPUT1 (LOOP OUT FROM INPUT1)

V-SLOT (LOOP OUT FROM VIDEOSLOT)

3G4G: 3G (3rd Generation) , 4G (4th Generation)

■ SD INFORMATION

D

SD INFORMATION

MAIN-SUB TIME

1		H
2		H
3		H
4		H
5		H
6		H
7		H
8		H

MENU/ENTER NEXT EXIT PREV 4 / 4

E

F

<MAIN, SUB Display Contents>

MAIN	SUB
0 : No SD (No abnormality)	0 : No sub category
5 : Speaker shortcircuited	0 : No sub category
6 : Module u-com communication NG	0 : No sub category
8 : IIC communication NG	1 : EEPROM communication NG
	3 : VIDEO SLOT IC1 (CVBS) communication NG
	4 : VIDEO SLOT IC1 (Y/C) communication NG
	5 : A/D Main (A line) communication NG
	6 : A/D Main (B line) communication NG
	7 : IC6 communication NG
	F : VIDEO SLOT EEPROM communication NG
	J : AUDIO CONTROL IC communication NG
	K : Expand I/O2 communication NG
A : FAN stop	1 : FAN stop
B : Abnormal in temperature (high temperature)	1 : Thermal sensor 1 high temperature
	2 : Thermal sensor 2 high temperature
	3 : Thermal sensor 3 high temperature
	4 : Thermal sensor 4 high temperature
D : Abnormal in Power supply	0 : No sub category
8 : Other abnormality	1 : RLS cable pulled out
	2 : DC power down for COMM SLOT
	3 : DC power down for VIDEO SLOT
8 : NG except above item (main u-com NG)	0 : No sub category

8.3 FACTORY MENU MODE



■ Adjusting conditions

Adjustments should be carried out in the procedures below. However, any adjustments other than the below are not required.

- When the "PDP module" is replaced, adjustments should conform to the adjusting items below.
[HOW TO CLEAR HISTORY DATA] [BACKUP WHEN THE MAIN UNIT IS ADJUSTED]
- When the "MAIN Assy" is replaced, adjustments should conform to the adjusting item of [1, 2] specified below.

1. Adjustments after the replacement of the MAIN Assy (Using the remote control)

1-1. Product serial No. registration

- (1) Press the keys in the order of [PIP SHIFT] → [SET] → [Clear] → [PIP SHIFT] in order to enter the factory adjustment menu.
- (2) Press the [Clear] or [ID No. set] key to select the [MONITOR INFORMATION] No. menu.
(Example : PDP-507CMX)

```
+  MONITOR INFORMATION

MODEL NAME
PDP-507CMX
SERIAL/NUMBER
:
SOFTWARE VERSION
: EM03
USAGE TIME
: 00000H

T1  025  T2  025
T3  025  T4  - - -

[MENU/ENTER] NEXT [EXIT] PREV  9 / 10
```

- (3) Press the [SCREEN SIDE] key 4 times to display a cursor in the lower column of [SERIAL/NUMBER].

```
+  MONITOR INFORMATION

MODEL NAME
PDP-507CMX
SERIAL/NUMBER
: 
SOFTWARE VERSION
: EM03
USAGE TIME
: 00000H

T1  025  T2  025
T3  025  T4  - - -

[MENU/ENTER] NEXT [EXIT] PREV  9 / 10
```

No modification is possible here because this modification is already finished.
Factory shipment setting (initial setting).

No modification is possible here because registration is already finished at the time of shipment in terms of maintenance parts.

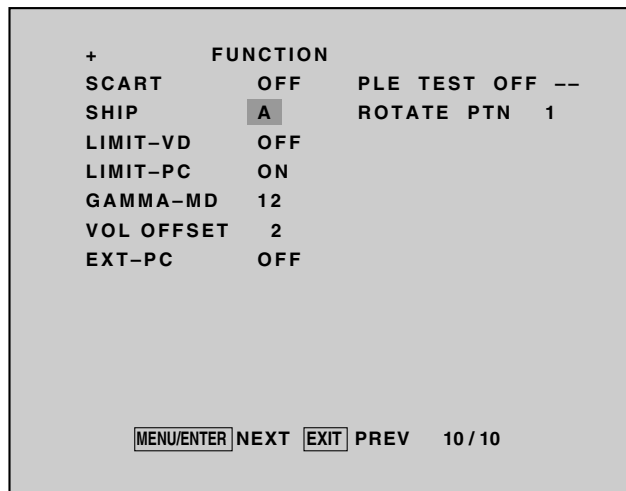
- (4) Moving the keys of [▲] and [▼], select the numerals and characters of the serial number that is listed in the serial label located on the rear surface of the product. Register the serial number. (Blank → 0 to 9→A to Z)

- (5) Moving the keys of [◀] and [▶], select the next digit by means of a cursor.
- (6) Repeat the processes of (4) and (5) above and register the serial number completely.

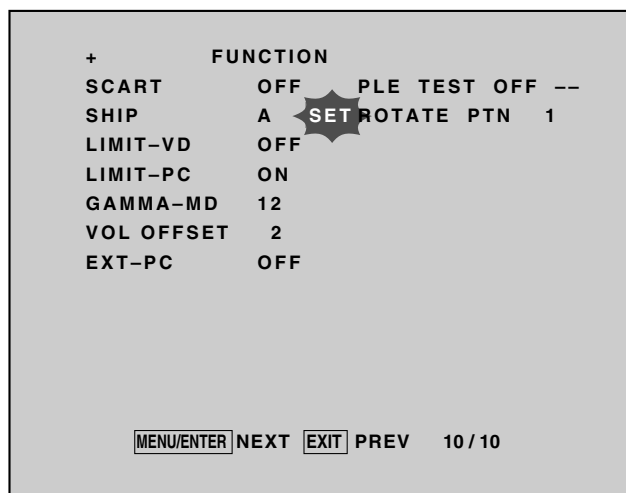
2-2. Factory shipment setting (Initial setting)

- (1) Press the **[CLEAR]** or **[ID SELECT]** key to select the **[FUNCTION]** menu.
- (2) Move the keys of **[▲]** and **[▼]** to the item of **[SHIP]**. Then, move the keys of **[◀]** and **[▶]** to select **[DESTINATION ALPHABETS]** shown below.
(The asterisks * shown below denote the numerals or the characters.)

A : PDP-507CMX
J : PDP-507CMX-JP
G : PDP-50MXE20
GS : PDP-50MXE20-S



- (3) Press the keys in the order of **[MUTE]** → **[▲]** → **[▼]** → **[MUTE]** to make "Factory shipment setting".
When "Factory shipment setting" is executed, the red characters of **[SET]** is shown for about 5 seconds on the right side of the **[DESTINATION ALPHABETS]**.
The setting is finished when these red characters of **[SET]** go out. In regard to the factory shipment setting values, refer to the descriptions given below.



- (4) Press the keys of the remote control in the order of **[PIP SHIFT]** → **[SET]** → **[CLEAR]** → **[PIP SHIFT]** in order to withdraw from the Factory shipment setting.

[Factory shipment setting values]

1. Initial setting values for the user menu (applicable in common to all models)

MENU	A, J, G, GS
VOLUME	10 step
INPUT MODE	INPUT1
WIDE MODE	FULL
LANGUAGE	ENGLISH
ENERGY SAVE	STANDARD1

2. Field menu initial setup values (applicable in common to all models)

MENU		A	J	G	GS
SERVICE	SHIP	A	J	G	GS
	PSC-LIMIT	OFF			
	LIMIT-PC	ON			
	U-SCAN	OFF			
	V-FREQ OT	60Hz			
	V-FREQ VD	60Hz			
	SYNCLEVEL1	TTL			
	SYNCLEVEL2	TTL			
	DVI-SEL	HDCP			
	SUB-ORB	ON			
	PIC FREEZE	ON			
MONITOR INFORMATION	MODEL NAME	PDP-507CMX	PDP-507CMX-JP	PDP-50MXE20	PDP-50MXE20-S

3. Initial setting values for the Factory shipment setting menu

The table shown below specifies only the items that can be changed in the factory adjusting mode. Therefore, any setting values of the items not specified below cannot be modified.

MENU		A	J	G	GS
FUNCTION	SHIP	A	J	G	GS
	LIMIT-PC	ON	ON	ON	ON
MONITOR INFORMATION	SERIAL/NUMBER	—	—	—	—

8.4 PANEL FACTORY MENU MODE

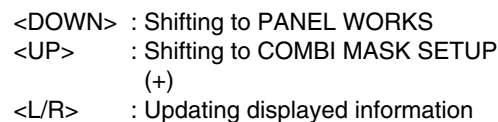
■ Operation Items

This is the menu screen for the adjustment of the panel. Data acquisition and value adjustment can be performed for the following items:

No.	Indication	Description of functions
8.4.1	PANEL INFORMATION	Data, such as the version of the microcomputer of the panel, product serial number, and statuses of memories for adjustment values for the main unit and for backup, are displayed.
8.4.2	PANEL WORKS	Operation data, such as accumulated pulse-meter count, accumulated hour-meter count, accumulated power-on count, and the temperature detected by the sensor, are displayed.
8.4.3	POWER DOWN	The power-down history is displayed, with the hour-meter values that indicate the hour values when power-downs occurred.
8.4.4	SHUT DOWN	The shutdown history is displayed, with the hour-meter values that indicate the hour values when shutdowns occurred.
8.4.5	PANEL-1 ADJ (+)	Settings of the driving pulse timing and driving voltage can be performed.
8.4.6	PANEL-2 ADJ (+)	White balance and ABL (power consumption) for the panel can be set.
8.4.7	PANEL REVISE (+)	The level for correction of panel degradation can be set.
8.4.8	ETC. (+)	Copying of backup data and clearance of various data can be performed.
8.4.9	RASTER MASK SETUP (+)	The mask indication (RASTER) can be set and indicated.
8.4.10	PATTEN MASK SETUP (+)	The mask indication (PATTERN) can be set and indicated.
8.4.11	COMBI MASK SETUP (+)	The mask indication (COMBI) can be set and indicated.

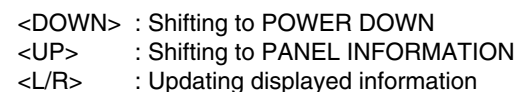
- In the following examples, GUI images for a 50-inch model are indicated. Although the display areas for the menu for 42-inch and 50-inch models are different, the items to be displayed are the same.

- Data, such as the version of the microcomputer of the panel, product serial number, and statuses of memories for adjustment values for the main unit and for backup, are displayed. No other layers are nested below this layer, and there are no adjustment items.



MODULE : The version of data written in the Module microcomputer (IC3151) is indicated.
 SEQ-PRG : The version of data written in the Sequence Program Storage Memory (IC3301) is indicated.
 VD-SEQ : The Drive Sequence version for Video mode is indicated.
 PC-SEQ : The Drive Sequence version for PC mode is indicated.
 SERIAL : The serial number of the module is indicated.
 DIG.EEP : The adjusted status of the EEPROM that is mounted on the DIGITAL Assy is indicated.
 BACKUP : The adjusted status of the EEPROM for backup that is mounted on the SENSOR Assy is indicated.

- Data on operations, such as the accumulated pulse-meter counts, hour-meter count, power-on count, and temperature detected by the sensor, are sent back. No other layers are nested below this layer, and there are no adjustment items.



← Temperature unit is " °C (Centigrade) ".

- PM-B1 to B5: The accumulated pulse-meter counts for the 5 blocks on the screen are indicated. (the lowest-order digit represents millions of pulses.)
- HR-MTR: The hour-meter value (accumulated power-on hours) is indicated.
- P-COUNT: The accumulated power-on count is indicated.
- TEMP1: The current panel temperature and the historical maximum temperature recorded in memory are indicated. The range of temperature indication is from -50.0 to +99.9. (The temperature unit is " °C (Centigrade) ").

8.4.3 POWER DOWN

- The power-down history is displayed. The last most 8 power-down histories are displayed with the hour-meter values that indicate the hours when power-downs occurred. No other layers are nested below this layer, and there are no adjustment items.

■ Key operation

- <DOWN> : Shifting to SHUT DOWN
- <UP> : Shifting to PANEL WORKS
- <L/R> : Updating displayed information

		1	5	10	15	20	25	30	32
1		PANEL	FACT.		IN1-30602-RGB-JWM7				
AREA 1		POWER	DOWN						
2		1ST		2ND		000124H	23M		
3									
4		1	X-DRV			000124H	21M		
5		2	Y-SUS	SQ-NON		000115H	05M		
6		3	SCAN			000107H	53M		
7		4	POWER	SCAN		000098H	47M		
8		5	ADRS			000051H	30M		
9		6	SCAN5V	X-DCDC		000022H	21M		
A		7	Y-DCDC			000000H	57M		
B		8							
C									
D									
E									

<Causes of power-down and corresponding OSD indications>

Cause of power-down	OSD Indication	Cause of power-down	OSD Indication
POWER SUPPLY Unit	P-PWR	ADDRESS Assy	ADRS
SCAN Assy	SCAN	X DRIVE Assy	XDRV
5V power for SCAN Assy	SCAN5V	DC/DC converter for X drive	X-DCDC
Y DRIVE Assy	YDRV	X-drive SUS circuit	X-SUS
DC/DC converter for Y drive	Y-DCDC	Specification inability	UNKNOWN
Y-drive SUS circuit	Y-SUS		

- * When power-down is confirmed, the factor is displayed as "1st", "2nd", according to the accuracy order.
- * The power-down history is not recorded when the power-down occurred at the same place and same time.

8.4.4 SHUT DOWN

- The shutdown history is displayed. The last most 8 shutdown histories are displayed with the hour-meter values that indicate the hours when shutdowns occurred. No other layers are nested below this layer, and there are no adjustment items.

■ Key operation

- <DOWN> : Shifting to PANEL-1 ADJ (+)
- <UP> : Shifting to POWER DOWN
- <L/R> : Updating displayed information

		1	5	10	15	20	25	30	32
1		PANEL	FACT.		IN1-30602-RGB-JWM7				
AREA 1		SHUT	DOWN						
2		MAIN		SUB		000124H	23M		
3									
4		1	TMP-NG	TEMP1		000124H	21M		
5		2	SQ-IC	SQNO/L		000115H	05M		
6		3	MD-IIC	EEPROM		000107H	53M		
7		4	SQ-IC	VER-LR		000098H	47M		
8		5	MD-IIC	BACKUP		000051H	30M		
9		6	SQ-IC	SEP-IC		000012H	07M		
A		7							
B		8							
C									
D									
E									

- * When there is detail information when shutdown occurred, the possible defective part is displayed as Sub information.

<Causes of shut-down and corresponding OSD indications>

Cause of shut-down (MAIN)		Subcategory of Cause of shut-down (SUB)	
Item	OSD Indication	Item	OSD Indication
Drive Sequence Processing IC	SQ-IC	Communication Error	RTRY
		Drive Sequence Stop	SQNO
		Communication Busy	BUSY
		Version Mismatching	VER-HS
MDU-IIC	MD-IIC	MAIN EEPROM Communication Error	EEPROM
		BACKUP EEPROM Communication Error	BACKUP
		DAC Communication Error	DAC
High temperature of the panel	TMP-NG	Temperature NG	TEMP

8.4.5 PANEL-1 ADJ (+)

- Timing and voltage for the driving pulse are set. At the upper right of the screen, the wb table and frequency table indicating operation status are displayed, and at the lower left of the screen, the item for the upper nested layer (PANEL-1 ADJ [+]) is displayed. Pressing the SET key shifts the screen to the next nested layer below for item selection.

	1	5	10	15	20	25	30	32
1			PANEL	FACT.		BSD-30602-DIG-JHB7		
							[TBL1/60VS]	
5								
10								
15			PANEL-1	ADJ	(+)			
16								

When the screen is shifted to the next nested layer below, a subitem is indicated on the 3rd line, and detailed data are indicated on the 15th line.

	1	5	10	15	20	25	30	32
1			PANEL	FACT.		BSD-30602-DIG-JHB7		
			PANEL-1	ADJ			[---/60VS]	
5								
10								
15			VOL	OFFSET	<=>		:128	
16								

- When the screen is shifted to the next nested layer below, a subitem is indicated on the 3rd line, and detailed data are indicated on the 15th line.
- When the screen is shifted to this layer while the RASTER MASK is selected, the Panel W/B setting is temporarily set to default.

Key operation

- <DOWN> : Shifting to PANEL-2 ADJ (+)
- <UP> : Shifting to SHUT DOWN
- <SET> : Shifting to the next nested layer

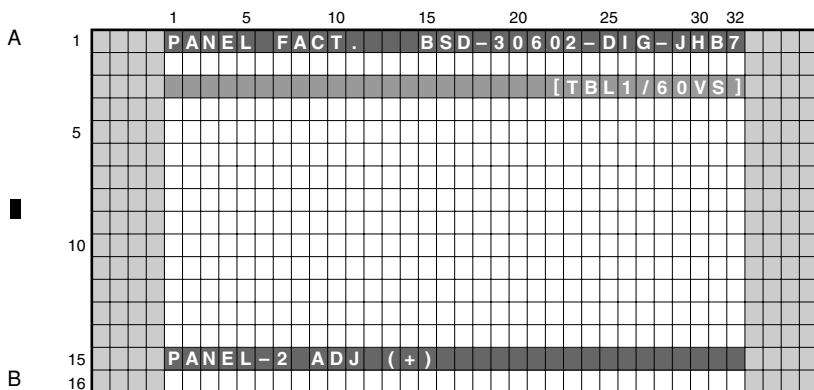
Key operation

- <DOWN> : Shifting to the next item
- <UP> : Shifting to the previous item
- <RIGHT> : Adding by one to the adjustment value
- <LEFT> : Subtracting by one from the adjustment value
- <VOL+> : Adding by 10 to the adjustment value
- <VOL-> : Subtracting by 10 from the adjustment value
- <SET> : Determining the adjustment value and shifting to the upper layer

<Lower-layer items of PANEL-1 ADJ>

No.	Items	Adjustment/Setting Value	RS-232C Command
1	X-SUS B <=>	120 to 136	XSB
2	Y-SUS B <=>	120 to 136	YSB
3	Y-SUSTAIL T1 <=>	120 to 136	YTG
4	Y-SUSTAIL T2 <=>	120 to 136	YTB
5	Y-SUSTAIL W <=>	120 to 136	YTW
6	XY-RST W1 <=>	120 to 136	RSW
7	XY-RST W2 <=>	120 to 136	RYW
8	VOL SUS <=>	000 to 255	VSU
9	VOL OFFSET <=>	000 to 255	VOF
10	VOL RST P <=>	000 to 255	VRP
11	SUS FREQ. <=>	MODE1 to MODE8	SFR

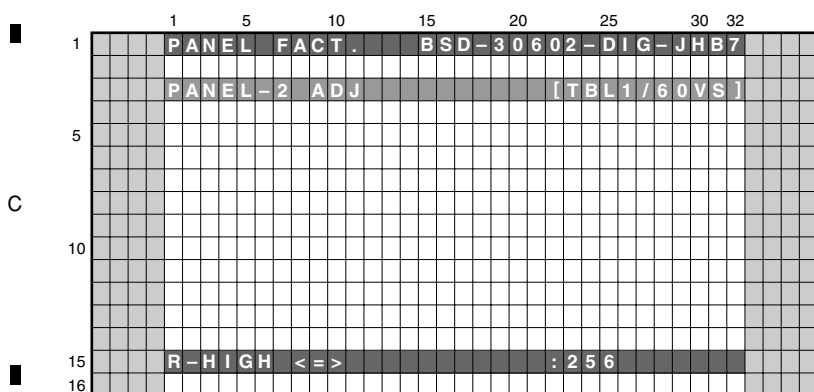
8.4.6 PANEL-2 ADJ (+)



RGB gain adjustment can be performed. Pressing the SET key shifts the screen to the next nested layer below for item selection.

■ Key operation

- <DOWN> : Shifting to PANEL REVISE (+)
- <UP> : Shifting to PANEL-1 ADJ (+)
- <SET> : Shifting to the next nested layer



The ABL/WB adjustment values are divided into 4 tables for each drive sequence. The table No. and adjustment value of the current drive sequence are indicated at right on the 3rd line on the screen.

■ Key operation

- <DOWN> : Shifting to the next item
- <UP> : Shifting to the previous item
- <RIGHT> : Adding by one to the adjustment value
- <LEFT> : Subtracting by one from the adjustment value
- <VOL+> : Adding by 10 to the adjustment value
- <VOL-> : Subtracting by 10 from the adjustment value
- <SET> : Determining the adjustment value and shifting to the upper layer

Sequence and Adjustment value

Sequence	Video 50 Hz	Video 60 Hz	Video 72 Hz	Video 75 Hz	PC 70 Hz
Adjustment value table	TBL 2	TBL 1	TBL 1	TBL 3	TBL 4

<Lower-layer items of PANEL-2 ADJ>

No.	Items	Adjustment/Setting Value	RS-232C Command
1	R-HIGH <=>	000 to 511	PRH
2	G-HIGH <=>	000 to 511	PGH
3	B-HIGH <=>	000 to 511	PBH
4	R-LOW <=>	000 to 999	PRL
5	G-LOW <=>	000 to 999	PGL
6	B-LOW <=>	000 to 999	PBL
7	ABL <=>	000 to 255	ABL

8.4.7 PANEL REVISE (+)

- The degradation compensation level for white balance can be set.

	1	5	10	15	20	25	30	32
1	PANEL	FACT.		BSD-30602-DIG-JHB7				
5								
10								
15	PANEL	REVISE	(+)					
16								

Key operation

- <DOWN> : Shifting to ETC.(+)
- <UP> : Shifting to PANEL-2 ADJ (+)
- <SET> : Shifting to the next nested layer

	1	5	10	15	20	25	30	32
1	PANEL	FACT.		BSD-30602-DIG-JHB7				
	PANEL	REVISE						
5								
10								
15	R-LEVEL	<=>						
16								

Key operation

- <DOWN> : Shifting to the next item
- <UP> : Shifting to the previous item
- <RIGHT> : Adding by one to the adjustment value
- <LEFT> : Subtracting by one from the adjustment value
- <SET> : Determining the setting value and shifting to the upper layer

< Lower-layer items of PANEL REVISE (+) >

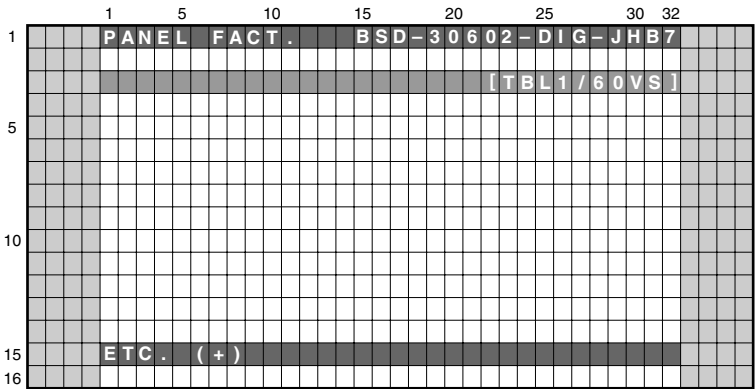
No.	Items	Adjustment/Setting Value	RS-232C Command
1	R-LEVEL <=>	LV-0 to LV-7	RRL
2	G-LEVEL <=>	LV-0 to LV-7	RGL
3	B-LEVEL <=>	LV-0 to LV-7	RBL

A

- Settings concerning backup of adjustment values and clearance of the histories can be made.

■

B



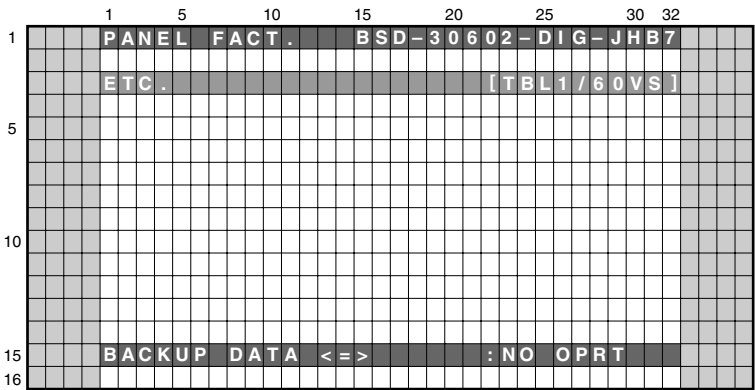
■ Key operation

- <DOWN> : Shifting to RASTER MASK SETUP (+)
- <UP> : Shifting to PANEL REVISE (+)
- <SET> : Shifting to the next nested layer

■

C

■



■ Key operation

- <DOWN> : Shifting to the next item
- <UP> : Shifting to the previous item
- <RIGHT> : Adding by one to the adjustment value
- <LEFT> : Subtracting by one from the adjustment value
- <SET> : Determining the setting value and shifting to the upper layer

D

<Lower-layer items of ETC.>

No.	Items	Adjustment/Setting Value	RS-232C Command
1	BACKUP DATA <=>	NO OPRT <=> TRANSFER or ERR	BCP
2	DIGITAL EEPROM <=>	NO OPRT <=> DELETE/REPAIR	FAJ/UAJ
3	PD INFO. <=>	NO OPRT <=> CLEAR	CPD
4	SD INFO. <=>	NO OPRT <=> CLEAR	CSD
5	HR-MTR INFO. <=>	NO OPRT <=> CLEAR	CHM
6	PM/B1-B5 <=>	NO OPRT <=> CLEAR	CPM
7	P-COUNT INFO. <=>	NO OPRT <=> CLEAR	CPC
8	MAX TEMP. <=>	NO OPRT <=> CLEAR	CMT

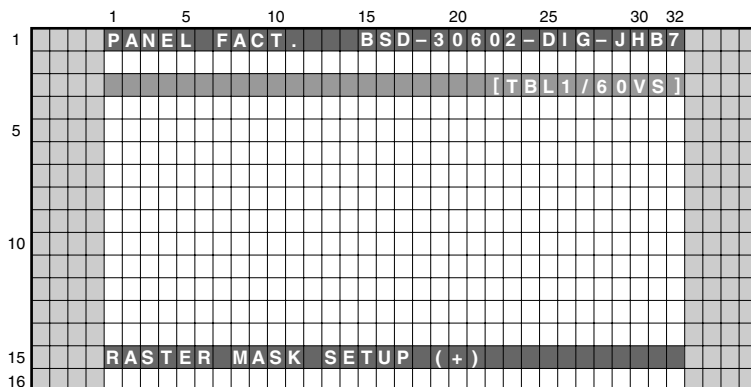
E

■

F

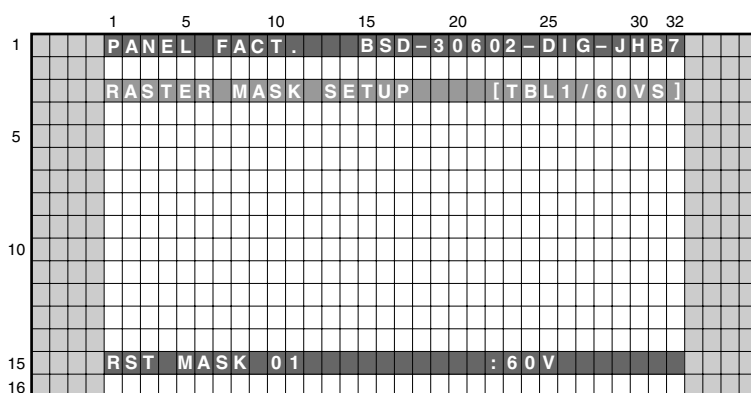
8.4.9 RASTER MASK SETUP (+)

- Setting of RASTER MASK and setting of drive sequence during Raster Mask mode can be made.



■ Key operation

- <DOWN> : Shifting to PATTEN MASK SETUP(+)
- <UP> : Shifting to ETC. (+)
- <SET> : Shifting to the next nested layer



■ Key operation

- <DOWN> : Shifting to the next MASK
- <UP> : Shifting to the previous MASK
- <RIGHT> : Changing MASK sequence (+)
- <LEFT> : Changing MASK sequence (-)
- <SET> : Determining the setting value and shifting to the upper layer

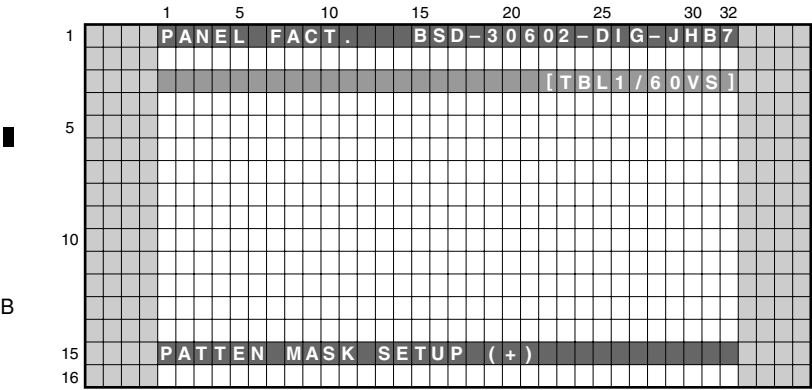
<Lower-layer items of RASTER MASK SETUP>

No.	Items	Adjustment/Setting Value	RS-232C Command
1	MASK OFF	<=> 48V <=> 50V <=> 60V <=> 60P <=> 70P <=> 72V <=> 75V <=> (Each sequence can be selected.)	MKS+S00
2	PTN MASK 01 <=>		MKS+S51
3
4	PTN MASK 24 <=>		MKS+S74

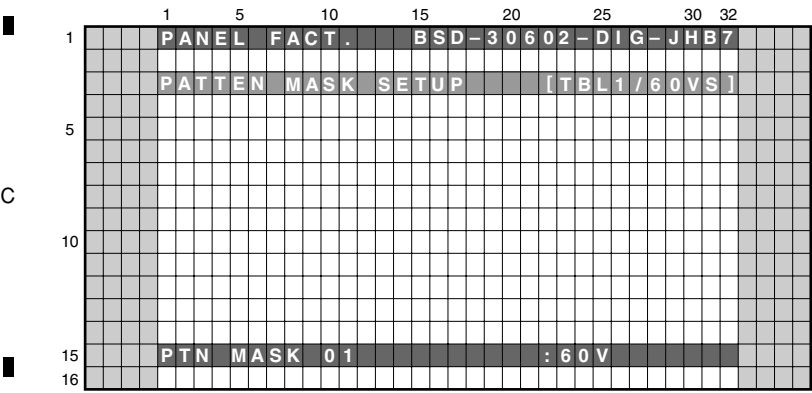
- The MASK indication sequence can be changed among 48V, 50V, 60V, 72V, 75V, 60P, and 70P, using the Right or Left key. The selected sequence and the ABL/WB table are retained until the mask is turned off.
- 48V and 60P are represented by 50V and 60V, respectively. The ABL/WB table is changed to the PC table.

A

- Setting of PATTERN MASK and setting of drive sequence during Pattern Mask mode can be made.



- **Key operation**
- <DOWN> : Shifting to COMBI MASK SETUP (+)
 - <UP> : Shifting to RASTER MASK SETUP (+)
 - <SET> : Shifting to the next nested layer



- **Key operation**
- <DOWN> : Shifting to the next MASK
 - <UP> : Shifting to the previous MASK
 - <RIGHT> : Changing MASK sequence (+)
 - <LEFT> : Changing MASK sequence (-)
 - <SET> : Determining the setting value and shifting to the upper layer

D

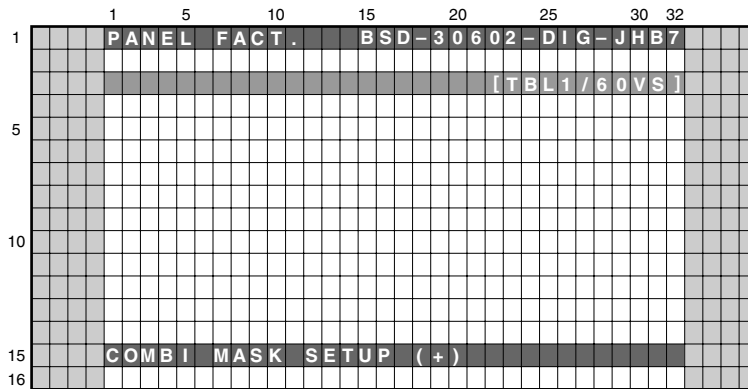
<Lower-layer items of PATTERN MASK SETUP (+) >

No.	Items	Adjustment/Setting Value	RS-232C Command
1	MASK OFF	<=> 48V <=> 50V <=> 60V <=> 60P <=> 70P <=> 72V <=> 75V <=> (Each sequence can be selected.)	MKS+S00
2	RST MASK 01 <=>		MKS+S01
3
4	RST MASK 39 <=>		MKS+S39

- The MASK indication sequence can be changed among 48V, 50V, 60V, 72V, 75V, 60P, and 70P, using the Right or Left key. The selected sequence and the ABL/WB table are retained until the mask is turned off.
- 48V and 60P are represented by 50V and 60V, respectively. The ABL/WB table is changed to the PC table.

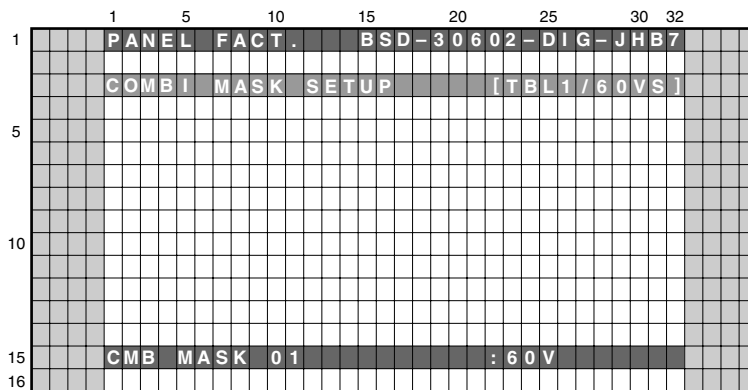
8.4.11 COMBI MASK SETUP (+)

- Setting of COMBI MASK and setting of drive sequence during Combi Mask mode can be made.



■ Key operation

- <DOWN> : Shifting to PANEL INFORMATION (+)
- <UP> : Shifting to RASTER MASK SETUP (+)
- <SET> : Shifting to the next nested layer



■ Key operation

- <DOWN> : Shifting to the next MASK
- <UP> : Shifting to the previous MASK
- <RIGHT> : Changing MASK sequence (+)
- <LEFT> : Changing MASK sequence (-)
- <SET> : Determining the setting value and shifting to the upper layer

<Lower-layer items of COMBI MASK SETUP (+)>

No.	Items	Adjustment/Setting Value	RS-232C Command
1	MASK OFF	<=> 48V <=> 50V <=> 60V <=> 60P <=> 70P <=> 72V <=> 75V <=> (Each sequence can be selected.)	MKC+S00
2	CMB MASK 01 <=>		MKC+S01
3
4	CMB MASK 10 <=>		MKC+S10

- The MASK indication sequence can be changed among 48V, 50V, 60V, 72V, 75V, 60P, and 70P, using the Right or Left key. The selected sequence and the ABL/WB table are retained until the mask is turned off.
- 48V and 60P are represented by 50V and 60V, respectively. The ABL/WB table is changed to the PC table.

9. LIST OF RS-232C COMMANDS

9.1 RS-232C COMMANDS OUTLINE

9.1.1 PREPARED TOOLS

It is necessary to prepare the following tools to use RS-232C command.

- PC
- Application for control
- 232C cable (straight)

* It is not likely to operate correctly in Win98 function/ ME and Win for foreign countries.

* The setting of the Com port cannot be communicated if it has not been done correctly.

(Please follow a operating instructions of the PC about the Com port.)

9.1.2 COMMAND PROTOCOL

■Communication protocol : Asynchronous serial communication by RS-232C

Start bit length : 1 bit
Data width : 8 bit (ASCII code/ no distinction between upper case and lower case)
Parity : None
Stop bit length : 1 bit
Baud rate : 1200/2400/4800/19200/38400 bps (Initial value : 9600 bps)

■ Adjustment function

Direct effectivity of numbers : When a number is transmitted after a command, an adjustment value can be directly set.

■ Data format

The format of the control signal transmitted from the user side controller is as described below.

STX (02Hex) is arranged at the time of communication start and ETX (03Hex) is arranged at the time of data transmission complete, and ID, command and parameter are arranged in between. Data consists of ASCII type alphanumeric characters, and there is no distinction between the upper case and the lower case.

- In the case of command only
[single function command]

STX	ID	Command	ETX
0x02	**	□□□	0x03

- When setting/adjustment data is accompanied
[setting/adjustment command]

STX	ID	Command	Parameter	ETX
0x02	**	□□□	△△△	0x03

■Command processing

Command processing starts as soon as the command is entered.

ID shall be the two asterisks, "**".

■Confirmation of reception

The module microcomputer will make judgment to the command received from the main side, and if the command is judged to be an effective one, processing will be executed. When the system is in the standby status for the next command after completion of the processing, a reply to the received command is sent out. The data to be responded is a data in the upper case after deleting the ID code from the received command.

- When setting/adjustment data is accompanied
Data transmitted from PC

STX	ID	Command	Parameter	ETX
0x02	**	□□□	△△△	0x03

Reply data

STX	Command	Parameter	ETX
0x02	□□□	△△△	0x03

- In the case of command only
Data transmitted from PC

STX	ID	Command	ETX
0x02	**	□□□	0x03

Reply data

STX	Command	ETX
0x02	□□□	0x03

When responding, ERR is sent back if the command is unknown, and XXX is sent back if the command itself is valid but it cannot be processed because of its status.

- In the case of invalid command
Data transmitted from PC

STX	ID	Command	ETX
0x02	**	□□□	0x03

Reply data

STX	Command	ETX
0x02	ERR	0x03

- In the case of a command not executable due to its status
Data transmitted from PC

STX	ID	Command	ETX
0x02	**	□□□	0x03

Reply data

STX	Command	ETX
0x02	XXX	0x03

■Processing in the case of an error

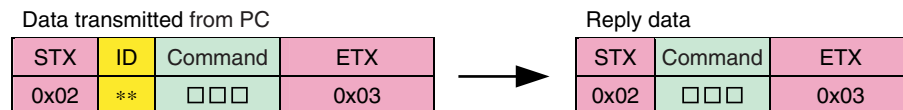
If a communication error occurs between STX and ETX, processing of that command is stopped, and the reception buffer is cleared.

In the command reception process, the character string transmitted after the receipt of STX are continued to be stored in the register, and by receipt of ETX, the character string sandwiched between STX and ETX is recognized as a command. If the prepared character string storage buffer (24 bytes including STX, ID and ETX) is exceeded, a reply will not be sent out.

9.1.3 DEFINITION OF COMMAND

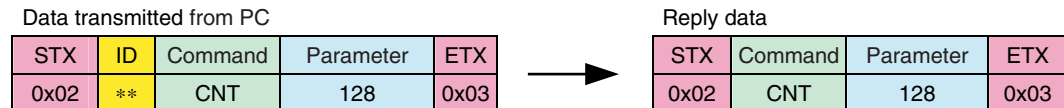
■Single function command

It is a command that a command alone will complete an operation, and the command section consists of three characters.



■Adjustment command and adjustment value

It is a command, accompanied by an adjustment value, to change the parameter value, and the command section is also three characters as in the case of a single function command. The adjustment value is a three character decimal numerical data within the range of 000-999. Incidentally, the adjustable range will be different depending on the function to be adjusted. (Be careful as it is not always up to 999.)

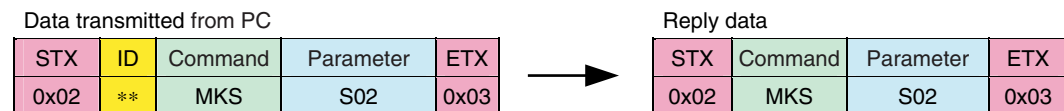


* XXX will be transmitted if the received command is exceeding the adjustable range of the adjustment value.

* When the same setting value is transmitted consecutively for two times or more, the setting is overwritten without responding with XXX even though the command is invalid, and an ACK after deleting the ID is sent back.

■Setting command and setting value

It is a command, accompanied by a setting value, to change the setting value of the parameter, and the command section consists of three characters. The setting value consists of three characters, and the first character is fixed to S and the remaining two characters are decimal numbers within the range of S00-S99.



* XXX will be transmitted if the received command does not exist as a setting value.

* When the same setting value is transmitted consecutively for two times or more, the setting is overwritten without responding with XXX even though the command is invalid, and an ACK after deleting the ID is sent back.

■Status acquisition (QUEST) command

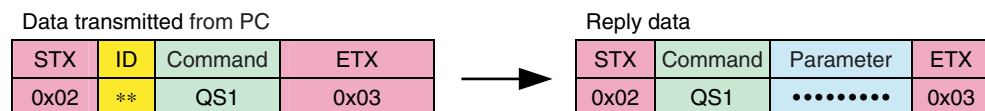
This is a command to report the operational status and the setting value to the system side.

When a command is received from the system side, an applicable content depending on the type of command is read out from the memory and sent back.

The command section consists of three characters, and the first character is fixed to Q. The second character and on are set depending on the content of the information.

When sending back a reply data, the received command, various data converted to ASCII code and checksum of that data are added and sent.

The data length will be subject to each individual specification as the content of a reply will be different depending on the type of QUEST command.



9.2 LIST OF RS-232C COMMANDS

Normal operation related command

Command	Operation	Numeric Direct input			Last Memory	Remarks
		Validity	Minimum	Maximum		
POWER						
POF	Turning the power OFF				O	
PON	Turning the power ON				O	
INPUT SELECT						
INP	Indicating the input data at present					
INPS01	Switching the main screen to input 1				O	
INPS02	Switching the main screen to input 2				O	
INPS03	Switching the main screen to input 3				O	
INPS04	Switching the main screen to input 4				O	
INPS05	Switching the main screen to input 5				O	
IN1	Switching the main screen to input 1				O	
IN2	Switching the main screen to input 2				O	
IN3	Switching the main screen to input 3				O	
IN4	Switching the main screen to input 4				O	
IN5	Switching the main screen to input 5				O	
SSIS01	Switching the sub screen to input 1				O	
SSIS02	Switching the sub screen to input 2				O	
SSIS03	Switching the sub screen to input 3				O	
SSIS04	Switching the sub screen to input 4				O	
SSIS05	Switching the sub screen to input 5				O	
SWM	Full-screen outputs the main input				O	
SWS	Full-screen outputs the sub input				O	
SCREEN SIZE						
AST	Execution of auto setup				O	
SZM	Indicating the screen-size at present					
SZMS00	Setting the screen size to Dot by Dot				O	
SZMS01	Setting the screen size to 4 :3				O	
SZMS02	Setting the screen size to FULL				O	
SZMS03	Setting the screen size to ZOOM				O	
SZMS05	Setting the screen size to WIDE				O	
SZMS06	Setting the screen size to 14:9				O	
SZMS09	Setting the screen size to UNDERSCAN				O	
SZMS10	Setting the screen size to 2.35:1				O	
VIDEO						
PMTS00	Turning the video mute OFF				O	
PMTS01	Turning the video mute ON				O	
STLS00	Cancelling the video freeze				O	
STLS01	Freezing the video				O	
AUDIO						
VOL	Adjusting the audio volume	O	000	042	O	
AMTS00	Turning the audio mute OFF				O	
AMTS01	Turning the audio mute ON				O	
AUSS01	Setting the audio source to main				O	
AUSS02	Setting the audio source to sub				O	
MULTI SCREEN						
MSC	Indicating the multi screen at present					
MSCS00	Setting the multi screen to OFF				O	
MSSS01	Setting the PinP sub-screen size to 1				O	
MSSS02	Setting the PinP sub-screen size to 2				O	
MSSS03	Setting the PinP sub-screen size to 3				O	
MSSS04	Setting the PinP sub-screen size to 4				O	
MST	Indicating the multi screen type at present					
MSTS01	Setting the multi screen to 2_SCREEN (side by side 1)				O	
MSTS02	Setting the multi screen to PinP (lower right)				O	
MSTS03	Setting the multi screen to PinP (upper right)				O	
MSTS04	Setting the multi screen to PinP (upper left)				O	
MSTS05	Setting the multi screen to PinP (lower left)				O	
MSTS06	Setting the multi screen to PoutP (side by side 2-L)				O	
MSTS08	Multi screen SWAP (Switch the main/sub screen)				O	
MSTS09	Setting the multi screen to PoutP (side by side 2-R)				O	
MSTS10	Setting the multi screen to 2_SCREEN (side by side 3)				O	
MSTS11	Setting the multi screen to PoutP (side by side 4-L)				O	
MSTS12	Setting the multi screen to PoutP (side by side 4-R)				O	
SSI	Indicating the input data on sub screen at present					

Command	Operation	Numeric Direct input			Last Memory	Remarks
		Validity	Minimum	Maximum		
FUNCTIONAL LOCK						
FCL	Indicating the setting value of functional lock at present					
FCLS00	Cancelling the functional lock				○	
FCLS01	Prohibiting the button operation of the main unit				○	
FCLS02	Prohibiting the button operation of the remote controller				○	
FCLS03	Prohibiting the button operation of the main unit and remote controller				○	
FCLS04	Setting the memory lock				○	
OSD						
DOF	Erasing the currently OSD displayed indications					

■ [MENU] - [SETUP] related command

Command	Operation	Numeric Direct input			Last Memory	Remarks
		Validity	Minimum	Maximum		
COLOR TEMP.						
CTP	Indicating the setting value on color temperature					
CTPS01	Setting the color temperature to LOW				O	
CTPS02	Setting the color temperature to MID LOW				O	
CTPS03	Setting the color temperature to MID LOW				O	
CTPS04	Setting the color temperature to MID HIGH				O	
CTPS05	Setting the color temperature to HIGH				O	
DNR						
DNR	Indicating the setting value on DNR at present					
DNRS00	Setting the digital NR to OFF				O	
DNRS01	Setting the digital NR to LOW				O	
DNRS02	Setting the digital NR to MIDDLE				O	
DNRS03	Setting the digital NR to HIGH				O	
MPEG NR						
MNR	Indicating the setting value on MPEG NR at present					
MNRS00	Setting the MPEG NR to OFF				O	
MNRS01	Setting the MPEG NR to LOW				O	
MNRS02	Setting the MPEG NR to MIDDLE				O	
MNRS03	Setting the MPEG NR to HIGH				O	
CTI						
CTR	Indicating the setting value on CTI at present					
CTRS00	Turning the CTI OFF				O	
CTRS01	Turning the CTI ON				O	
PURE CINEMA						
PUC	Indicating the setting value on pure cinema at present					
PUCS00	Turning the pure cinema OFF				O	
PUCS01	Setting the pure cinema to STANDARD				O	
COLOR DECORING						
MCD	Indicating the COLOR DECORING at present					
MCDS01	Setting the color difference selection to RGB (VIDEO)				O	
MCDS02	Setting the color difference selection to COMPONENT1 (Y CbCr)				O	
MCDS03	Setting the color difference selection to COMPONENT2 (Y PbPr)				O	
COLOR SYSTEM						
CLS	Indicating the setting value on color system at present					
CLSS01	Setting the color system to AUTO				O	
CLSS02	Setting the color system to NTSC				O	
CLSS03	Setting the color system to PAL				O	
CLSS04	Setting the color system to SECAM				O	
CLSS05	Setting the color system to 4.43NTSC				O	
CLSS06	Setting the color system to PAL M				O	
CLSS07	Setting the color system to PAL N				O	
SIGNAL FORMAT						
SFT	Indicating the setting value on signal format at present					
SFTS01	Setting the signal format to Type1				O	
SFTS02	Setting the signal format to Type2				O	
SFTS03	Setting the signal format to Type3				O	
SFTS04	Setting the signal format to Type4				O	
SFTS05	Setting the signal format to Type5				O	
SFTS06	Setting the signal format to Type6				O	
SFTS07	Setting the signal format to Type7				O	
SFTS08	Setting the signal format to Type8				O	

A

Command	Operation	Numeric Direct input			Last Memory	Remarks
		Validity	Minimum	Maximum		
SFTS09	Setting the signal format to Type9				O	
SFTS20	Setting the signal format to Type10				O	
SFTS10	Setting the signal format to AUTO				O	
DVI						
DSGS01	Setting the DVI connecting signal to PC				O	
DSGS02	Setting the DVI connecting signal to VIDEO				O	
DBLS01	Setting the DVI black level to LOW				O	
DBLS02	Setting the DVI black level to HIGH				O	

B

■ [MENU] - [OPTION] related command

Command	Operation	Numeric Direct input			Last Memory	Remarks
		Validity	Minimum	Maximum		
ENERGY SAVE						
ESV	Indicating the setting value to power-saving at present					
ESVS00	Turning the power-saving setting to standard 1				O	
ESVS01	Turning the power-saving setting to mode 1 (power save)				O	
ESVS02	Turning the power-saving setting to mode 2 (brightness fixing)				O	
ESVS03	Turning the power-saving setting to mode 3 (longevity life)				O	
ESVS04	Turning the power-saving setting to auto				O	
ESVS05	Turning the power-saving setting to display off (video mute)				O	
ESVS06	Turning the power-saving setting to standard 2				O	
TIMER						
TSMS00	Turning the summer time OFF				O	
TSMS01	Turning the summer time ON				O	
TPH	Setting the time of current time	O	000	023	O	000~023 : setting by 24 hours
TPM	Setting the minute of current time	O	000	059	O	000~059 : setting by 60 minits
TPW	Setting the day of current time	O	001	007	O	001 : Sunday~007 : Saturday
TPTS00	Turning the program timer/repeat timer OFF				O	
TPTS01	Setting the timer to program timer				O	
TPTS02	Setting the timer to repeat timer				O	
ORBITER						
ORBS00	Turning the orbiter OFF				O	
ORBS01	Turning the orbiter ON (AUTO1)				O	
ORBS02	Turning the orbiter ON (AUTO2)				O	
ORBS03	Turning the orbiter ON (AUTO3)				O	
SOFT FOCUS						
SOFS00	Turning the soft focus OFF				O	
SOFS01	Setting the soft focut to 1				O	
SOFS02	Setting the soft focut to 2				O	
SOFS03	Setting the soft focut to 3				O	
SOFS04	Setting the soft focut to 4				O	
SUB SCREEN FREEZE						
SSTS00	Setting the sub screen FREEZE to OFF				O	
SSTS01	Setting the sub screen FREEZE to SIDE BY SIDE				O	
SSTS02	Setting the sub screen FREEZE to PinP				O	

E

F

■ [INTEGRATOR] - [PICTURE] related command

Command	Operation	Numeric Direct input			Last Momery	Remarks
		Validity	Minimum	Maximum		
VIDEO QUALITY						
CNT	Adjusting the contrast	O	000	255	O	
BRT	Adjusting the brightness	O	000	255	O	
ENH	Adjusting the horizontal enhance	O	000	015	O	
ENV	Adjusting the vertical enhance	O	000	015	O	
COL	Adjusting the color	O	000	127	O	
TNT	Adjusting the tint	O	000	060	O	
SHP	Adjusting the sharpness	O	000	015	O	
WHITE BALANCE						
RHI	Adjusting the R.HIGH	O	000	255	O	
GHI	Adjusting the G.HIGH	O	000	255	O	
BHI	Adjusting the B.HIGH	O	000	255	O	
GLW	Adjusting the G.LOW	O	000	255	O	
RLW	Adjusting the R.LOW	O	000	255	O	
BLW	Adjusting the B.LOW	O	000	255	O	
COLOR DETAIL						
CGR	Adjusting the color detail red	O	000	060	O	
CGY	Adjusting the color detail yellow	O	000	060	O	
CGG	Adjusting the color detail green	O	000	060	O	
CGC	Adjusting the color detail cyan	O	000	060	O	
CGB	Adjusting the color detail blue	O	000	060	O	
CGM	Adjusting the color detail magenta	O	000	060	O	
GAMMA						
GRA	Indicating the setting value on gradation at present					
GRAS18	Setting the gradation to "GAMMA 1.8"				O	
GRAS19	Setting the gradation to "GAMMA 1.9"				O	
GRAS20	Setting the gradation to "GAMMA 2.0"				O	
GRAS21	Setting the gradation to "GAMMA 2.1"				O	
GRAS22	Setting the gradation to "GAMMA 2.2"				O	
GRAS23	Setting the gradation to "GAMMA 2.3"				O	
GRAS24	Setting the gradation to "GAMMA 2.4"				O	
PRESET						
STD	Returning the PICTURE and W/B of integrator to the factory shipment value				O	

■ [INTEGRATOR] - [SCREEN] related command

Command	Operation	Numeric Direct input			Last Momery	Remarks
		Validity	Minimum	Maximum		
POSITION						
HPS	Adjusting the horizontal position	O	000	255	O	
VPS	Adjusting the vertical positiaon	O	000	255	O	
CLOCK/PHASE						
CFR	Adjusting the CLOCK (PLL frequency)	O	000	255	O	
CPH	Adjusting the PHASE (PLL phase)	O	000	031	O	
SIZE						
HSI	Adjusting the horizontal size	O	000	064	O	
VSI	Adjusting the vertical size	O	000	064	O	
PRESET						
FRP	Initializing each adjustment value of integrator/screen				O	

■ [INTEGRATOR] - [SETUP] related command

Command	Operation	Numeric Direct input			Last Momery	Remarks
		Validity	Minimum	Maximum		
SUB VOLUME						
SVL	Adjusting the sub volume	O	000	020	O	

■ [INTEGRATOR] - [OPTION] related command

Command	Operation	Numeric Direct input			Last Memory	Remarks
		Validity	Minimum	Minimum		
SCREEN MASK						
FMK	Indicating the setting value on screen mask at present					
FMKS00	Turning the screen mask OFF				○	
FMKS02	Turning the screen mask to inverse (negative positive inversion)				○	
FMKS03	Turning the screen mask to white mask				○	
FMKS04	Turning the screen mask to red mask				○	
FMKS05	Turning the screen mask to green mask				○	
FMKS06	Turning the screen mask to blue mask				○	
FMKS07	Turning the screen mask to yellow mask				○	
SIDE MASK						
RSL	Adjusting the side mask RED	○	000	255	○	
GSL	Adjusting the side mask GREEN	○	000	255	○	
BSL	Adjusting the side mask BLUE	○	000	255	○	
SMAS00	AUTO SIDE MASK function OFF					
SMAS01	AUTO SIDE MASK function ON					
VIDEO WALL						
MGF	Indicating the setting value on video wall					
MGFS00	Turning the video wall OFF				○	
MGFS11	Setting the video wall to DIVIDER : 1				○	
MGFS12	Setting the video wall to DIVIDER : 2 x 2				○	
MGFS13	Setting the video wall to DIVIDER : 3 x 3				○	
MGFS14	Setting the video wall to DIVIDER : 4 x 4				○	
MGFS15	Setting the video wall to DIVIDER : 5 x 5				○	
MGP	Indicating the video wall (expansion position/joint consideration on or not)					
MGPSnn	nn=01~04:DIVIDER= Set display position of 2 x 2 (there is no joint consideration)				○	
	nn=05~08:DIVIDER= Set display position of 2 x 2 (there is joint consideration)				○	
	nn=10~18:DIVIDER= Set display position of 3 x 3 (there is no joint consideration)				○	
	nn=20~28:DIVIDER= Set display position of 3 x 3 (there is joint consideration)				○	
	nn=30~3F:DIVIDER= Set display position of 4 x 4 (there is no joint consideration)				○	
	nn=40~4F:DIVIDER= Set display position of 4 x 4 (there is joint consideration)				○	
	nn=50~68:DIVIDER= Set display position of 5 x 5 (there is no joint consideration)				○	
	nn=70~88:DIVIDER= Set display position of 5 x 5 (there is joint consideration)				○	
IDA	Executing the auto ID setting				○	
PDES00	Turning the power-on delay mode OFF				○	
PDES01	Turning the power-on delay mode ON (except for more than 16 sides systems) or setting it to mode 1 (for more than 16 sides systems)				○	
PDES02	Setting the power-on delay mode to mode 2 (for more than 16 sides systems)				○	
LNKS00	Setting the ABL link OFF				○	
LNKS01	Setting the ABL link ON				○	
RS - 232C						
BRA	Indication the setting value on baud rate					
BRAS01	Setting the RS-232C baud rate to 1 200 bps				○	
BRAS02	Setting the RS-232C baud rate to 2 400 bps				○	
BRAS03	Setting the RS-232C baud rate to 4 800 bps				○	
BRAS04	Setting the RS-232C baud rate to 9 600 bps				○	
BRAS05	Setting the RS-232C baud rate to 19 200 bps				○	
BRAS06	Setting the RS-232C baud rate to 19 200 bps				○	
ID NUMBER						
IDC	Clearing the ID				○	
IDS	Clearing the ID				○	
FAN						
FCM	Maximizing the fan roll control				○	
FCA	Turning the fan roll control to auto				○	
FCU	Set the fan rotation control of integrator to the maximum and limit the luminance.				○	
OSD						
OSDS00	Turning the OSD display OFF				○	
OSDS01	Turning the OSD display ON				○	
OSSS01	Turning the OSD size to enlarged display				○	
OSSS02	Turning the OSD size to reduced display				○	
OSAS01	Setting the OSD display angle to horizontality				○	
OSAS02	Setting the OSD display angle to verticality				○	
FRONT INDICATOR						
LESS00	Turning the front indicator OFF				○	
LESS01	Turning the front indicator ON				○	

Command	Operation	Numeric Direct input			Last Memory	Remarks
		Validity	Minimum	Minimum		
COLOR MODE						
CLMS00	Setting the color mode to NORMAL				O	
CLMS01	Setting the color mode to STUDIO				O	
UNDER SCAN						
USCS00	Turning the UNDERSCAN OFF				O	
USCS01	Turning the UNDERSCAN ON				O	
USC	Indication the setting value to UNDERSCAN at present					
IMAGE PROCESS						
IPR	Acquiring the IMAGE PROCESS at present					
IPRS01	Setting the IMAGE PROCESS to NORMAL				O	
IPRS02	Setting the IMAGE PROCESS to PURE				O	
IPRS03	Setting the IMAGE PROCESS to MONOTONE				O	
IPRS04	Setting the IMAGE PROCESS to HIGH CONTRAST				O	
IPRS05	Setting the IMAGE PROCESS to BLUE ONLY				O	
FRC						
FRC	Indicating the setting value on RFC					
FRCS00	Turning the FRC OFF				O	
FRCS01	Turning the FRC ON				O	
SEAMLESS INPUT SWITCH						
SLSS00	Turning the SEAMLESS input switch mode OFF				O	
SLSS01	Turning the SEAMLESS input switch mode ON				O	
SL1S01	Setting the SEAMLESS SW SELECT 1 to INPUT1				O	
SL1S02	Setting the SEAMLESS SW SELECT 1 to INPUT2				O	
SL1S03	Setting the SEAMLESS SW SELECT 1 to INPUT3				O	
SL1S04	Setting the SEAMLESS SW SELECT 1 to INPUT4				O	
SL1S05	Setting the SEAMLESS SW SELECT 1 to INPUT5				O	
SL2S01	Setting the SEAMLESS SW SELECT 2 to INPUT1				O	
SL2S02	Setting the SEAMLESS SW SELECT 2 to INPUT2				O	
SL2S03	Setting the SEAMLESS SW SELECT 2 to INPUT3				O	
SL2S04	Setting the SEAMLESS SW SELECT 2 to INPUT4				O	
SL2S05	Setting the SEAMLESS SW SELECT 2 to INPUT5				O	
MIRROR						
MIRS00	Turning the mirror mode OFF (normal display)				O	
MIRS01	Reversing the right and left at mirror mode				O	
MIRS02	Reversing the top and bottom at mirror mode				O	
MIRS03	Reversing the right/left and top/bottom at mirror mode				O	
MULTI SCREEN						
PTRS00	Setting the sub-screen transmittance to OFF (0%)				O	
PTRS01	Setting the sub-screen transmittance to 10%				O	
PTRS02	Setting the sub-screen transmittance to 20%				O	
PTRS03	Setting the sub-screen transmittance to 30%				O	
PTRS04	Setting the sub-screen transmittance to 40%				O	
PTRS05	Setting the sub-screen transmittance to 50%				O	
PTRS06	Setting the sub-screen transmittance to 60%				O	
PTRS07	Setting the sub-screen transmittance to 70%				O	
PTRS08	Setting the sub-screen transmittance to 80%				O	
BPIS01	Setting the BANNER PinP input to INPUT1				O	
BPIS02	Setting the BANNER PinP input to INPUT2				O	
BPPS00	Setting the BANNER PinP to OFF				O	
BPPS01	Setting the BANNER PinP to TOP3				O	
BPPS02	Setting the BANNER PinP to MID-HIGH				O	
BPPS03	Setting the BANNER PinP to MID-LOW				O	
BPPS04	Setting the BANNER PinP to BOTTOM3				O	
BPPS05	Setting the BANNER PinP to TOP2				O	
BPPS06	Setting the BANNER PinP to BOTTOM2				O	
BPPS07	Setting the BANNER PinP to TOP1				O	
BPPS08	Setting the BANNER PinP to BOTTOM1				O	
BPPS09	Setting the BANNER PinP to LEFT				O	
BPPS10	Setting the BANNER PinP to RIGHT				O	
PFAS00	PIP fade-in function off				O	
PFAS01	PIP fade-in function on				O	
PFAS10	PIP fade-in (only at PIP fade-in on)					
PFAS11	PIP fade-off (only at PIP fade-in on)					
FUNCTION DEFAULT						
FDT	Executing the FUNCTION DEFAULT				O	

■ Other command

Command	Operation	Numeric Direct input			Last Memory	Remarks
		Validity	Minimum	Minimum		
DISPLAY CALL						
DITS01	Indication to DISPLAYCALL1					
DITS02	Indication to DISPLAYCALL2					
IM0	Writing the INFORMATION (1 to 3 character)				O	
IM1	Writing the INFORMATION (4 to 6 character)				O	
IM2	Writing the INFORMATION (7 to 9 character)				O	
IM3	Writing the INFORMATION (10 to 12 character)				O	
IM4	Writing the INFORMATION (13 to 15 character)				O	
IM5	Writing the INFORMATION (16 to 18 character)				O	
IM6	Writing the INFORMATION (19 to 21 character)				O	
IMD	Clearing the INFORMATION				O	
AUXILIARY COMMAND						
DW0	Decreasing the adjustment value by 10					
DWF	Minimizing the adjustment value					
DWn	Decreasing the adjustment value by n (n=1 to 9)					
UP0	Increasing the adjustment value by 10					
UPF	Maximizing the adjustment value					
UPn	Increasing the adjustment value by n (n =1 to 9)					
QST	Acruiring the status					
QPI	Acruiring data on integrator/PICTURE					
QWB	Acruiring data on integrator WHITE BAL.					
QPS	Acruiring data on integrator SCREEN					
QSS	Acruiring data on SETUP					
QSO	Acruiring data onnew integrator OPTION					
QAP	Acruiring the model name					
QCI	Acruiring data on the time					
QSU	Acruiring data on the audio status					
OTHER						
MRKS00	Turn the mark indication to off.					
MRKS01	Turn the mark indication to on.					
RMCS10	Remote control key CURSOR RIGHT					
RMCS11	Remote control key CURSOR LEFT					
RMCS12	Remote control key CURSOR UP					
RMCS13	Remote control key CURSOR DOWN					
RMCS14	Remote control key SET					
RMCS25	Remote control key MENU					
RMCS26	Remote control key POINT ZOOM					
RMCS27	Remote control key ID NO SET					
RMCS28	Remote control key CLEAR					
RMCS29	Remote control key FREEZE					
RMCS30	Remote control key STANDBY/ON					
RMCS31	Remote control key VOLUME UP					
RMCS32	Remote control key VOLUME DOWN					
RMCS33	Remote control key MUTING					
RMCS34	Remote control key SCREEN SIZE					
RMCS35	Remote control key SPLIT					
RMCS36	Remote control key SUB INPUT					
RMCS37	Remote control key PIP SHIFT					

Factory related command

Command	Operation	Command Effectiveness		Numeric Direct input			Remarks
		Factory	Normal Operation	Validity	Minimum	Maximum	
Operation mode selection							
FAN	Turning the factory mode OFF	O	-	-	-	-	
FAY	Turning the factory mode ON	-	O	-	-	-	
FALS00	Turning the factory mode lock OFF	O	-	-	-	-	
FALS01	Turning the factory mode ON	O	-	-	-	-	
Power supply control of drive system							
DRVS00	Turning the power of drive system OFF	O	O	-	-	-	
DRVS01	Turning the power of drive system ON	O	O	-	-	-	
Various adjustment of the main side							
MAJS00	Starting the W/B and LPF auto adjustment of the MAIN Assy	O	-	-	-	-	
MAJS01	Forcibly finishing the W/B and LPF auto adjustment of the MAIN Assy	O	-	-	-	-	
ADC***	Adjusting the AD contrast	O	-	O	000	255	
MRG***	Adjusting the R GAIN of AD MAIN	O	-	O	000	255	
MRO***	Adjusting the R OFFSET of AD MAIN	O	-	O	000	255	
MGG***	Adjusting the G GAIN of AD MAIN	O	-	O	000	255	
MGO***	Adjusting the G OFFSET of AD MAIN	O	-	O	000	255	
MBG***	Adjusting the B GAIN of AD MAIN	O	-	O	000	255	
MBO***	Adjusting the B OFFSET of AD MAIN	O	-	O	000	255	
SRG***	Adjusting the R GAIN of AD SUB	O	-	O	000	255	
SRO***	Adjusting the R OFFSET of AD SUB	O	-	O	000	255	
SGG***	Adjusting the G GAIN of AD SUB	O	-	O	000	255	
SGO***	Adjusting the G OFFSET of AD SUB	O	-	O	000	255	
SBG***	Adjusting the B GAIN of AD SUB	O	-	O	000	255	
SBO***	Adjusting the B OFFSET of AD SUB	O	-	O	000	255	
Various control of the main side							
FCNS00	Setting the fan roll control to stop	O	-	-	-	-	
FCNS01	Setting the fan roll control to maximum	O	-	-	-	-	
FCNS02	Setting the fan roll control to middle	O	-	-	-	-	
FCNS03	Setting the fan roll control to weak	O	-	-	-	-	
FCNS04	Setting the fan roll control to auto	O	-	-	-	-	
FCNS99	Setting the fan roll control to TEST	O	-	-	-	-	
FOF	Requesting the fan abnormality detection	O	-	-	-	-	ACK→ S01 : Normal S02 : Abnormal
LEDS00	Turning off the all front indicators	O	-	-	-	-	
LEDS02	Setting the front indicators to normal operation	O	-	-	-	-	
LEDS10	Front indicators: ON (green)	O	-	-	-	-	
LEDS11	Front indicators: STANDBY (red)	O	-	-	-	-	
EDWS00	Prohibiting writing of EDID data	O	-	-	-	-	
EDWS01	Permitting writing of EDID data	O	-	-	-	-	
EPAS00	Prohibiting EEPROM access from the outside	O	-	-	-	-	
EPAS01	Permitting EEPROM access from the outside	O	-	-	-	-	

A

Command	Operation	Command Effectiveness		Numeric Direct input			Remarks
		Factory	Normal Operation	Validity	Minimum	Maximum	
Various adjustment of the panel side							
ABL***	Adjusting the power upper limit value (ABL)	O	-	O	000	255	
PRH***	Adjusting the R HIGH of panel W/B	O	-	O	000	511	
PGH***	Adjusting the G HIGH of panel W/B	O	-	O	000	511	
PBH***	Adjusting the B HIGH of panel W/B	O	-	O	000	511	
PRL***	Adjusting the R LOW of panel W/B	O	-	O	000	999	
PGL***	Adjusting the G LOW of panel W/B	O	-	O	000	999	
PBL***	Adjusting the B LOW of panel W/B	O	-	O	000	999	
VOF***	Adjusting the offset voltage	O	-	O	000	255	
VRP***	Adjusting the P-RST voltage	O	-	O	000	255	
VSU***	Adjusting the sus voltage	O	-	O	000	255	
RSW***	Adjusting the XY-RST width 1	O	-	O	120	136	
RYW***	Adjusting the XY-RST width 2	O	-	O	120	136	
XSB***	Adjusting the X-SUS B timing	O	-	O	120	136	
YSB***	Adjusting the Y-SUS B timing	O	-	O	120	136	
YTG***	Adjusting the Y-SUS TAIL timing	O	-	O	120	136	
YTW***	Adjusting the Y-SUS TAIL width	O	-	O	120	136	
Various control of the panel side							
PGMS**	Set up the panel gamma table	O	O	-	-	-	
PKLS00	Setting the brightness to 0	O	O	-	-	-	
PKLS01	Setting the brightness to 1	O	O	-	-	-	
PKLS02	Setting the brightness to 2	O	O	-	-	-	
PKLS03	Setting the brightness to 3	O	O	-	-	-	
PKLS04	Setting the brightness to 4	O	O	-	-	-	
PKLS05	Setting the brightness to 5	O	O	-	-	-	
PKLS06	Setting the brightness to 6	O	O	-	-	-	
PKLS07	Setting the brightness to 7	O	O	-	-	-	
PWAS00	Setting the power consumption to normal	O	O	-	-	-	507CMX : 4L, 607CMX : 2L
PWAS01	Setting the power consumption to energy-saving	O	O	-	-	-	507CMX : 4L, 607CMX : 2L
PWAS10	Setting the power consumption to normal (2L)	O	O	-	-	-	
PWAS11	Setting the power consumption to energy-saving (2L)	O	O	-	-	-	
SMMS**	Setting the side mask to full screen	O	O	-	-	-	
SQMS00	Setting the drive sequence mode to sequence at no signal input	O	O	-	-	-	
SQMS01	Setting the drive sequence mode to sequence for VIDEO (animation)	O	O	-	-	-	
SQMS02	Setting the drive sequence mode to sequence for PC (still picture)	O	O	-	-	-	
SQMS03	Setting the drive sequence mode to 48Hz/72Hz sequence	O	O	-	-	-	
WBIS00	Turning the default output of panel W/B off	O	-	-	-	-	
WBIS01	Turning the default output of panel W/B on	O	-	-	-	-	
APWS00	Prohibiting WB-APL interlocking	O	-	-	-	-	
APWS01	Permitting WB-APL interlocking	O	-	-	-	-	
Mask indication							
VFQS01	Setting the frequency in mask mode to VIDEO-48Hz	O	-	-	-	-	
VFQS02	Setting the frequency in mask mode to VIDEO-50Hz	O	-	-	-	-	
VFQS03	Setting the frequency in mask mode to VIDEO-60Hz	O	-	-	-	-	
VFQS05	Setting the frequency in mask mode to VIDEO-72Hz	O	-	-	-	-	
VFQS06	Setting the frequency in mask mode to VIDEO-75Hz	O	-	-	-	-	
VFQS13	Setting the frequency in mask mode to PC-60Hz	O	-	-	-	-	
VFQS14	Setting the frequency in mask mode to PC-70Hz	O	-	-	-	-	

F

Command	Operation	Command Effectiveness		Numeric Direct input			Remarks
		Factory	Normal Operation	Validity	Minimum	Maximum	
VFQS22	Setting the frequency in mask mode to VIDEO-50Hz NONSTD	O	-	-	-	-	
VFQS23	Setting the frequency in mask mode to VIDEO-60Hz NONSTD	O	-	-	-	-	
VFQS25	Setting the frequency in mask mode to VIDEO-72Hz NONSTD	O	-	-	-	-	
VFQS26	Setting the frequency in mask mode to VIDEO-75Hz NONSTD	O	-	-	-	-	
MKCS00	Turning the mask off	O	O	-	-	-	
MKCS01	Combination mask COMB01: set to H RAMP (lean 1) M	O	-	-	-	-	
MKCS02	Combination mask COMB02: set to H RAMP (lean 4) M	O	-	-	-	-	
MKCS03	Combination mask COMB03: set to slant RAMP M	O	-	-	-	-	
MKCS04	Combination mask COMB04: set to 30 for aging	O	-	-	-	-	
MKCS05	Combination mask COMB05: set to 05 for aging	O	-	-	-	-	
MKCS06	Combination mask COMB06: set to residual image erase 1	O	-	-	-	-	
MKCS07	Combination mask COMB07: set to residual image erase 2	O	-	-	-	-	
MKCS08	Combination mask COMB08: set to white (luminance change)	O	-	-	-	-	
MKCS09	Combination mask COMB09: set to PEAK detection raster	O	-	-	-	-	
MKSS00	Turning the mask off	O	O	-	-	-	
MKSS01	Pattern mask PATTERN01: set to H RAMP (lean 1)	O	-	-	-	-	
MKSS02	Pattern mask PATTERN02: set to H RAMP (lean 4)	O	-	-	-	-	
MKSS03	Pattern mask PATTERN03: set to V RAMP (lean 1)	O	-	-	-	-	
MKSS04	Pattern mask PATTERN04: set to slant RAMP	O	-	-	-	-	
MKSS05	Pattern mask PATTERN05: Window (Hi=870, Lo=102)	O	-	-	-	-	
MKSS06	Pattern mask PATTERN06: Window (Hi=1023, Lo=102)	O	-	-	-	-	
MKSS07	Pattern mask PATTERN07: Window (Hi=1023)	O	-	-	-	-	
MKSS08	Pattern mask PATTERN08: Window (Hi=1023) 4%	O	-	-	-	-	
MKSS09	Pattern mask PATTERN09: Window (Hi=1023) 1.25%	O	-	-	-	-	
MKSS10	Pattern mask PATTERN10: Window (1/7 LINE)	O	-	-	-	-	
MKSS11	Pattern mask PATTERN11: STRIPE (MGT/GRN)	O	-	-	-	-	
MKSS12	Pattern mask PATTERN12: STRIPE (GRN/MGT)	O	-	-	-	-	
MKSS13	Pattern mask PATTERN13: Black and white checks (1 LINE)	O	-	-	-	-	
MKSS14	Pattern mask PATTERN14: Black and white checks (2 LINE)	O	-	-	-	-	
MKSS15	Pattern mask PATTERN15: Black and white checks (4 LINE)	O	-	-	-	-	
MKSS16	Pattern mask PATTERN16: Black and white checks (8 LINE)	O	-	-	-	-	
MKSS17	Pattern mask PATTERN17: COLOR BAR	O	-	-	-	-	
MKSS18	Pattern mask PATTERN18: Slanted lines	O	-	-	-	-	
MKSS19	Pattern mask PATTERN19: red and black checks (1 LINE)	O	-	-	-	-	
MKSS20	Pattern mask PATTERN20: red and black checks (2 LINE)	O	-	-	-	-	
MKSS21	Pattern mask PATTERN21: red and black checks (4 LINE)	O	-	-	-	-	
MKSS22	Pattern mask PATTERN22: red and black checks (8 LINE)	O	-	-	-	-	
MKSS23	Pattern mask PATTERN23: Residual image erase (RGB cross V inversion)	O	-	-	-	-	
MKSS24	Pattern mask PATTERN24: SUS200 (black raster)	O	-	-	-	-	
MKSS25	Pattern mask PATTERN25: Window (Hi=870, Lo=102)	O	-	-	-	-	
MKSS26	Pattern mask PATTERN26: Window (Hi=1023, Lo=102)	O	-	-	-	-	
MKSS27	Pattern mask PATTERN27: Window (Hi=1023)	O	-	-	-	-	
MKSS28	Pattern mask PATTERN28: Window (Hi=1023) 4%	O	-	-	-	-	
MKSS29	Pattern mask PATTERN29: Window (Hi=1023) 1.25%	O	-	-	-	-	
MKSS30	Pattern mask PATTERN30: Window (1/7 LINE)	O	-	-	-	-	

A

Command	Operation	Command Effectiveness		Numeric Direct input			Remarks
		Factory	Normal Operation	Validity	Minimum	Maximum	
MKSS54	Raster mask RASTER04: set to blue	O	-	-	-	-	
MKSS55	Raster mask RASTER05: set to black	O	-	-	-	-	
MKSS56	Raster mask RASTER06: set to cyan	O	-	-	-	-	
MKSS57	Raster mask RASTER07: set to magenta	O	-	-	-	-	
MKSS58	Raster mask RASTER08: set to yellow	O	-	-	-	-	
MKSS59	Raster mask RASTER09: set to cyan 460: W	O	-	-	-	-	
MKSS60	Raster mask RASTER10: set to green 774: W	O	-	-	-	-	
MKSS61	Raster mask RASTER11: set to gray 912: W	O	-	-	-	-	
MKSS62	Raster mask RASTER12: set to eggshell color: W	O	-	-	-	-	
MKSS63	Raster mask RASTER13: set to pearl orange(eggshell color): W	O	-	-	-	-	
MKSS64	Raster mask RASTER14: set to sky blue: W	O	-	-	-	-	
MKSS65	Raster mask RASTER15: set to light purple: W	O	-	-	-	-	
MKSS66	Raster mask RASTER16: set to magenta: W	O	-	-	-	-	
MKSS67	Raster mask RASTER17: set to red 640	O	-	-	-	-	
MKSS68	Raster mask RASTER18: set to magenta 98	O	-	-	-	-	
MKSS69	Raster mask RASTER19: set to sky blueX1	O	-	-	-	-	
MKSS70	Raster mask RASTER20: set to sky blueX2	O	-	-	-	-	
MKSS71	Raster mask RASTER21: set to light purple X	O	-	-	-	-	
MKSS72	Raster mask RASTER22: set to blue 960	O	-	-	-	-	
MKSS73	Raster mask RASTER23: set to yellow 512	O	-	-	-	-	
MKSS74	Raster mask RASTER24: set to gray 512	O	-	-	-	-	
AM radio noise counterplan							
SFRS01	Setting AM radio noise counterplan to pattern 1	O	-	-	-	-	
SFRS02	Setting AM radio noise counterplan to pattern 2	O	-	-	-	-	
SFRS03	Setting AM radio noise counterplan to pattern 3	O	-	-	-	-	
SFRS04	Setting AM radio noise counterplan to pattern 4	O	-	-	-	-	
SFRS05	Setting AM radio noise counterplan to pattern 5	O	-	-	-	-	
SFRS06	Setting AM radio noise counterplan to pattern 6	O	-	-	-	-	
SFRS07	Setting AM radio noise counterplan to pattern 7	O	-	-	-	-	
SFRS08	Setting AM radio noise counterplan to pattern 8	O	-	-	-	-	
Serial no. setting							
SN0***	Setting 1, 2, or 3 for the serial number of the panel	O	-	-	-	-	
SN1***	Setting 4, 5, or 6 for the serial number of the panel	O	-	-	-	-	
SN2***	Setting 7, 8, or 9 for the serial number of the panel	O	-	-	-	-	
SN3***	Setting 10, 11, or 12 for the serial number of the panel	O	-	-	-	-	
SN4***	Setting 13, 14, or 15 for the serial number of the panel	O	-	-	-	-	
SN5***	Setting 1, 2, or 3 for the serial number of the unit	O	-	-	-	-	
SN6***	Setting 4, 5, or 6 for the serial number of the unit	O	-	-	-	-	
SN7***	Setting 7, 8, or 9 for the serial number of the unit	O	-	-	-	-	
SN8***	Setting 10, 11, or 12 for the serial number of the unit	O	-	-	-	-	
SN9***	Setting 13, 14, or 15 for the serial number of the unit	O	-	-	-	-	
Information clear / protection							
CHM	Clearing HOUR METER	O	-	-	-	-	
CNG	Clearing SHUT DOWN history of the main	O	-	-	-	-	
CBU	Setting the backup state of panel to no backup	O	-	-	-	-	Initialize backup ROM
CMT	Clearing the maximum tempera ture	O	-	-	-	-	
CPC	Clearing the POWER ON COUNTER	O	-	-	-	-	
CPD	Clearing the POWER DOWN history	O	-	-	-	-	
CPM	Clearing the PULSE METER	O	-	-	-	-	
CSD	Clearing the SHUT DOWN history of the panel	O	-	-	-	-	
PFS	Returning to the factory shipment state that seting data of panel	O	-	-	-	-	
ZPR	Initializing setting data without adjust command of panel	O	-	-	-	-	
BCP	Returning the backup data to digital Assy	O	-	-	-	-	

F

Command	Operation	Command Effectiveness		Numeric Direct input			Remarks
		Factory	Normal Operation	Validity	Minimum	Maximum	
UAJ	Returning the digital ASSY to service parts	O	-	-	-	-	
FAJ	Determining the main unit adjustment on panel	O	-	-	-	-	
SHIS01	Setting the SHIP to A	O	-	-	-	-	
SHIS02	Setting the SHIP to G	O	-	-	-	-	
SHIS03	Setting the SHIP to J	O	-	-	-	-	
SHIS05	Setting the SHIP to GS	O	-	-	-	-	
Various protection							
IJN	Turning the alarm detection off	O	-	-	-	-	Do not perform the main SHUT DOWN detection
IJY	Turning the alarm detection on	O	-	-	-	-	Perform the main SHUT DOWN detection
PPTS00	Turning the panel protection function off	O	-	-	-	-	Turn the still picture protection, panel crack protection and SCAN IC protection off
PPTS01	Turning the panel protection function on	O	-	-	-	-	Turn the still picture protection, panel crack protection and SCAN IC protection on

QUEST Command List

A

Command	Functional Description	Command Effectiveness	
		Factory	Normal Operation
QAP	The command QAP is for acquiring data on the model name from the main micro-computer management	●	●
QST	The command QST is for acquiring data on the product status	●	●
QS1	The command QS1 is for acquiring data on the various version information from the main micro-computer and module micro-computer management.	●	●
QS4	The command QS4 is for acquiring data on the input function, input signal information, screen size and destination information of the main screen.	●	●
QPI	The command QPI is for acquiring data on the integrator/PICTURE information.	●	●
QWB	The command QWB is for acquiring data on the integrator/WHITE BALANCE information.	●	●
QPS	The command QWS is for acquiring data on the integrator/SCREEN information.	●	●
QSS	The command QSS is for acquiring data on the Menu/integrator SETUP information.	●	●
QSO	The command QSO is for acquiring data on the Menu/integrator OPTION information.	●	●
QCI	The command QCI is for acquiring data on the time information from the main micro-computer management.	●	●
QSU	The command QSU is for acquiring data on the audio status.	●	●
QSI	The command QSI is for acquiring all data on input video signals.	●	●
QS2	The command QS2 is for acquiring data on the panel's operational information.	●	●
QIP	The command QIP is for acquiring data on operational information of the panel.	●	●
QAJ	The command QAJ is for acquiring the panel's factory-preset data.	●	●
QPW	The command QPW is for acquiring the factory-preset data about the video of the panel.	●	●
QPM	The command QPM is for acquiring the accumulated number of pulses of the panel.	●	●
QPD	The command QPD is for acquiring data from the 8 latest power-down (PD) logs.	●	●
QNG	The command QNG is for acquiring data on the history data (8 times) of the shut down information.	●	●
QSD	The command QSD is for acquiring the data from the 8 latest shutdown (SD) logs.	●	●

B

C

[QAP] Response format

Order	Data Contents	Length (BYTE)	Value	
1	STX	1	0x02	
2	Echo back	3	"QAP"	
3	Model name information	18	PDP-507CMX-JP**** PDP-507CMX****** PDP-50MXE20***** PDP-50MXE20-S***** PDP-607CMX****** PDP-60MXE20*****	50 J (Japan) A (North America) G (European/General included CKD) GS (European/General-Silver) 60 A (North America) G (European/General)
5	Check sum	2	(CS)	
6	ETX	1	0x03	

D

E

[QST] Response format

Order	Data Contents	Length (BYTE)	Value	
1	STX	1	0x02	
2	Echo back	3	"QST"	
3	Generation information	1	"7"	
4	Size information	1		Refer to following
5	Destination	1	"M"	
6	Power supply state	1		Standby state/Energization state (refer to the following table)
7	At standby: standby factor In electric conduction: Main-screen signal state	1		At standby: standby factor (refer to the following table) In electric conduction: Main-screen signal state (refer to the following table)
8	Sub-screen signal state	1		Sub-screen signal state (refer to the following table)
9	Main input function	3		Input function of Main screen (refer to the following table)
10	Sub input function	3		Input function of Sub screen (refer to the following table)
11	Main screen size information	1		Main screen size (refer to the following table)
12	Two-screen display state	1		Two-screen display state (refer to the following table)
13	Functional lock information	1		Functional lock state (refer to the following table)
14	Temperature information 1 (inside)	3		Main unit inside temperature (centigrade) (T2)
15	Temperature information 2 (outside air)	3		Outside air temperature (centigrade) (T3)
16	Temperature information 3 (SLOT)	3		SLOT temperature (centigrade) (T5)
17	Serial number	15		Serial number from the main micro computer
18	Dummy data 1	3		All "0"
19	Dummy data 2	2		All "*"
20	HOURLY METER	5		Time data of the Hour Meter controlled by the Main microcomputer If the time data of the Hour Meter are fewer than five digits, the higher-order digits will be padded with zeros.
21	Check sum	2	(CS)	
22	ETX	1	0x03	

[QST] Size information

Size information (response)	To acquired data on the MD microcomputer Resolution / size information
"3"	"1"
"4"	"2"
	"3"
	"4"
"5"	"5"
	"6"
"6"	"7"
"s"	Except the above

[QST] Power supply state

Power supply state (response)	Power supply state
"S"	Standby state
"P"	Energization state

[QST] Standby factor (at standby) / Main-screen signal state (in electric conduction)

At standby		In electric conduction	
Standby factor (response)	Standby factor	Main-screen signal state (response)	Signal state
"N"	Normal standby	"N"	Normal signal input
"W"	Power management	"L"	No signal input
"S"	PD or SD	"O"	OUT OF RANGE

[QST] Sub-screen signal state

Sub-screen signal state (response)	Signal state
"s"	Screen display
"N"	Normal signal input
"L"	No signal input
"O"	OUT OF RANGE

[QST] Main input function / Sub input function

Input function (response)	Input
"IN1"	INPUT1
"IN2"	INPUT2
"IN3"	INPUT3
"IN4"	INPUT4
"IN5"	INPUT5

*During Standby mode, the data that were stored upon last update will be sent back.

[QST] Main screen size

Main-screen size (response)	Screen size
"0"	DOT BY DOT
"1"	4:3
"2"	FULL
"3"	ZOOM
"5"	WIDE
"6"	14:9
"9"	UNDERSCAN
"A"	2.35:1

[QST] Two-screen display state

Two-screen display state (response)	Two-screen display state
"0"	OFF (screen display)
"2"	PinP (Light under)
"3"	PinP (Light top)
"4"	PinP (Left top)
"5"	PinP (Left under)
"1"	SIDE BY SIDE 1
"6"	SIDE BY SIDE 2-L
"9"	SIDE BY SIDE 2-R
"A"	SIDE BY SIDE 3
"B"	SIDE BY SIDE 4-L
"C"	SIDE BY SIDE 4-R

[QST] Functional lock information

Functional lock information (response)	Functional lock
"0"	LOCK OFF
"1"	BUTTONS LOCK
"2"	IR LOCK
"3"	IR & BUTTONS LOCK
"4"	MEMORY LOCK

[QS1] Response

Order	Data Contents	Length (BYTE)	Value
1	STX	1	0x02
2	Echo back	3	"QS1"
3	Model name information (refer to following this table)	43	
4	Delimiter	1	" , "
5	Dummy data 1	4	
6	Main microcomputer version information	3	
		1	"M"
		4	
7	Dummy data 2	40	
8	Check sum	2	(CS)
9	ETX	1	0x03

[QS1] Module information

	Data contents	Data Length	Data Example
1	Resolution / size	1Byte	F
2	Generation	1Byte	7
3	Destination	1Byte	*
4	Grade	1Byte	*
5	Product form	1Byte	D
6	MDUcom-Boot	3Byte	01A
7	MDUcom-PRG	8Byte	001A_M
8	Seq Prs-Boot	3Byte	01A
9	Seq Prs--PRG	8Byte	001Y
10	SQ-VIDEO	4Byte	001Y
11	SQ-PC	4Byte	001Y
12	Panel classification 1	1Byte	P
13	Reserved	7Byte	*****

5 : Product form	
D	Fixed

1 : Resolution / size	
3	1024*768-42
4	1024*768-43
5	1280*768-50
6	1365*768-50
7	1365*768-60
F	1920*1080-50

3 : Destination	
*	Fixed

12 : Panel classification 1	
P	Fixed

2 : Generation	
7	G7

4 : Grade	
*	Fixed

[QS4]: Response

Order	Data Contents	Length (BYTE)	Value	
1	STX	1	0x02	
2	Echo back	3	"QS4"	
3	Input function	3		Main input function (refer to the folloeing table)
4	Input signal classification	1		Input signal classification (refer to the folloeing table)
5	Vertical frequency information	1		Vertical frequency goup of input signal (refer to the folloeing table)
6	Main-screen size information	1		Main-screen size (refer to the folloeing table)
7	Color system	3		Input signal type or color system (refer to the folloeing table)
8	Destination information	3	"CMX"	
9	Check sum	2	(CS)	
10	ETX	1	0x03	

[QS4]: Main input function

Input function (response)	Main input
"IN1"	INPUT1
"IN2"	INPUT2
"IN3"	INPUT3
"IN4"	INPUT4
"IN5"	INPUT5
"***"	No confirmation (at standby).

[QS4]: Input signal classification

At PC signal input		At VIDEO signal input	
Input signal classification (response)	Signal classification (status)	Input signal classification (response)	Signal classification (status)
"_"	No signal input	"_"	No signal input
"?"	OUT OF RANGE	"?"	OUT OF RANGE
"A"	640x400/720x400	"1"	SDTV / 525i (480i)
"B"	640x480	"2"	SDTV / 525p (480p)
"C"	848x480/852x480	"3"	SDTV / 625i (576i)
"D"	800x600	"4"	SDTV / 625p (576p)
"E"	832x624	"5"	HDTV / 750p (720p)
"F"	1024x768	"6"	HDTV / 1125i (1035i)
"G"	1280x768	"7"	HDTV / 1125i (1080i)
"H"	1152x864	"8"	HDTV / 1125p (1080p)
"I"	1152x870		
"J"	1152x900		
"K"	1280x960		
"L"	1280x1024		
"M"	1400x1050		
"N"	1600x1200		

[QS4]: Vertical frequency (grouping with frequency)

Vertical frequency group (response)	Vertical frequency (Hz)
"_"	No signal input
"?"	OUT OF RANGE
"B"	20.0~28.0
"C"	28.0~45.0
"1"	45.0~54.5
"2"	54.5~58.2
"3"	58.2~63.0
"4"	63.0~68.0
"5"	68.0~73.4
"6"	73.4~73.9
"7"	73.9~80.0
"8"	80.0~88.5

[QS4]: Color system

Color system (response)	Signal type	Color system
"NTV"	CVBS	NTSC
"PLV"		PAL
"SCV"		SECAM
"4NV"		4.43NTSC
"PMV"		PAL M
"PNV"		PAL N
"BWV"		Distinction inability/no signal input
"NTS"	Y/C	NTSC
"PLS"		PAL
"SCS"		SECAM
"4NS"		4.43NTSC
"PMS"		PAL M
"PNS"		PAL N
"BWS"		Distinction inability/no signal input
"CBR"	COMPONENT	Y/Cb/Cr
"PBR"		Y/Pb/Pr
"RGB"		RGB
"DIG"	PC ANALOG	
	DIGITAL VIDEO	
	PC DVI	

[QS4]: Main-screen size

Main-screen size (response)	Screen size
"0"	DOT BY DOT
"1"	4:3
"2"	FULL
"3"	ZOOM
"5"	WIDE
"6"	14:9
"9"	UNDERSCAN
"A"	2.35:1

[QPI]: To acquire data on the integrator/PICTURE information

Order	Data Contents	Size	Remarks
1	STX	1Byte	02hex
2	Command echo back	3Byte	QPI (fixed)
3	CONTRAST	3Byte	000 - 255 Note 1
4	BRIGHTNESS	3Byte	000 - 255 Note 1
5	C,DETAIL R (RED)	3Byte	000 - 060 Note 1
6	C,DETAIL Y (YELLOW)	3Byte	000 - 060 Note 1
7	C,DETAIL G (GREEN)	3Byte	000 - 060 Note 1
8	C,DETAIL C (CYAN)	3Byte	000 - 060 Note 1
9	C,DETAIL B (BLUE)	3Byte	000 - 060 Note 1
10	C,DETAIL M (MAGENTA)	3Byte	000 - 060 Note 1
11	H.ENHANCE	3Byte	000 - 015 Note 1, 2
12	V.ENHANCE	3Byte	000 - 015 Note 1, 2
13	COLOR	3Byte	000 - 127 Note 1, 3
14	TINT	3Byte	000 - 060 Note 1, 3
15	SHARPNESS	3Byte	000 - 015 Note 1, 3
16	Main input function	3Byte	As the same contents as item 9 of QST command
17	Man screen size information	1Byte	As the same contents as item 11 of QST command
21	Check sum	2Byte	
22	ETX	1Byte	03hex

Note 1 : When the type of signal is not settled, dummy data are output.

Note 2 : Dummy data are output at video signal input.

Note 3 : Dummy data are output at PC signal input.

[QWB]: To acquire data on the integrator/WHITE BALANCE information

Order	Data Contents	Size	Remarks
1	STX	1Byte	02hex
2	Command echo back	3Byte	QWB (fixed)
3	R.HIGH	3Byte	000 - 255 Note 1
4	G.HIGH	3Byte	000 - 255 Note 1
5	B.HIGH	3Byte	000 - 255 Note 1
6	R.LOW	3Byte	000 - 255 Note 1
7	G.LOW	3Byte	000 - 255 Note 1
8	B.LOW	3Byte	000 - 255 Note 1
9	Main input function	3Byte	As the same contents as item 9 of QST command
10	Man screen size information	1Byte	As the same contents as item 11 of QST command
11	Check sum	2Byte	
12	ETX	1Byte	03hex

Note 1 : When the type of signal is not settled, dummy data are output.

[QPS]: To acquire data on the integrator/SCREEN information

Order	Data Contents	Size	Remarks
1	STX	1Byte	02hex
2	Command echo back	3Byte	QPS (fixed)
3	H.POSITION	3Byte	000 - 255 Note 1
4	V.POSITION	3Byte	000 - 255 Note 1
5	H.SIZE	3Byte	000 - 064 Note 1
6	V.SIZE	3Byte	000 - 064 Note 1
7	CLOCK	3Byte	000 - 255 Note 1, 2
8	PHASE	3Byte	000 - 031 Note 1, 2
9	Main input function	3Byte	As the same contents as item 9 of QST command
10	Man screen size information	1Byte	As the same contents as item 11 of QST command
21	Check sum	2Byte	
22	ETX	1Byte	03hex

Note 1 : When the type of signal is not settled, dummy data are output.

Note 2 : Dummy data are output at DVI or video signal input.

[QSS]: Response

A

Order	Data Contents	Length (BYTE)	Value	
1	STX	1	0x02	
2	Echo back	3	"QSS"	
3	COLOR TEMP.	1		1: LOW, 2: MID LOW, 3: MIDDLE, 4: MID HIGH, 5: HIGH
4	POWER MGT.	1		0: OFF, 1: ON
5	AUTO POWER OFF	1		0: DISABLE, 1: ENABLE
6	DNR	1		0: OFF, 1: LOW, 2: MIDDLE, 3: HIGH
7	MPEG NR	1		0: OFF, 1: LOW, 2: MIDDLE, 3: HIGH
8	CTI	1		0: OFF, 1: ON
9	PURECINEMA	1		0: OFF, 1: ON
10	COLOR DECODING	1		1: RGB, 2: COMP1, 2: COMP2
11	COLOR SYSTEM	1		1: AUTO, 2: NTSC, 3: PAL, 4: SECAM, 5: 4.43NTSC, 6: PAL M, 7: PAL N
12	DVI SET UP (PLUG/PLAY)	1		1: PC, 2: VIDEO
13	DVI SET UP (BLACK LEVEL)	1		1: LOW, 2: HIGH
14	BRT.ENHANCE	1		0: OFF, 1: ON
15	SUB VOLUME	2		0~20
16	Main input function	3		Input function on Main-screen (refer to the following table)
17	Main-screen size information	1		Main-screen size (refer to the following table)
18	Check sum	2	(CS)	
19	ETX	1	0x03	

B

[QSS]: Main-screen input function

Input function (response)	Input
"IN1"	INPUT1
"IN2"	INPUT2
"IN3"	INPUT3
"IN4"	INPUT4
"IN5"	INPUT5
"***"	No confirmation (at standby).

C

[QSS]: Main-screen size

Main-screen size (response)	Screen size
"0"	DOT BY DOT
"1"	4:3
"2"	FULL
"3"	ZOOM
"5"	WIDE
"6"	14:9
"9"	UNDERSCAN
"A"	2.35:1

D

E

F

[QSO]: Response

Order	Data Contents	Length (BYTE)	Value
1	STX	1	0x02
2	Echo back	3	"QSO"
3	ENERGY SAVE	1	0: STANDARD (50 inch=STANDARD1), 1: MODE1, 2: MODE2, 3: MODE3, 4: AUTO, 5: MUTE, 6: STANDARD2 (only 50 inch)
4	TIMER	1	0: OFF, 1: PROGRAM, 2: REPEAT
5	SCREEN MANAGEMENT (ORBITER)	1	0: OFF, 1: MODE1, 2: MODE2, 3: MODE3
6	SCREEN MANAGEMENT (SOFT FOCUS)	1	0: OFF, 1: 1, 2: 2, 3: 3, 4: 4
7	AUTO SETUP MODE	1	0: INACTIVE, 1: ACTIVE
8	AUTO FUNCTION	1	0: OFF, 1: INPUT1, 2: INPUT4
9	PIP DETECT	1	0: INACTIVE, 1: ACTIVE
10	SPLIT FREEZE	1	0: OFF, 1: S by S, 2: PIP
11	SCREEN MASK	1	0: OFF, 2: INVERSE, 3: WHITE, 4: RED, 5: GREEN, 6: BLUE, 7: YELLOW
12	SIDE MASK R-LEVEL	3	000~255
13	SIDE MASK G-LEVEL	3	000~255
14	SIDE MASK B-LEVEL	3	000~255
15	VIDEO WALL (MODE)	1	0: OFF, 1: 1, 2: 2x2, 3: 3x3, 4: 4x4, 5: 5x5
16	VIDEO WALL (POSITION)	2	1~56
17	VIDEO WALL (TYPE)	1	0: NORMAL, 1: ADJUSTED
18	VIDEO WALL (POWER ON DELAY)	1	0: OFF, 1: ON, 2: MODE1, 3: MODE2
19	VIDEO WALL (ABL LINK)	1	0: OFF, 1: ON
20	Reserved (dummy)	1	* disply
21	FAN CONTROL	1	1: AUTO, 2: MAX
22	OSD DISPLAY	1	0: OFF, 1: ON
23	OSD SIZE	1	0: LARGE, 1: SMALL
24	OSD ANGLE	1	0: H, 1: V
25	FRONT INDICATOR	1	0: OFF, 1: ON
26	COLOR MODE	1	1: NORMAL, 2: STUDIO
27	PRO USE UNDERSCAN	1	0: OFF, 1: ON
28	PRO USE IMAGE PROCESS	1	1: NORMAL, 2: PURE, 3: MONOTONE, 4: BLUE ONLY, 5: HIGH CONTRAST
29	PRO USE SIGNAL TYPE	1	1: MOTION, 2: STILL, 3: NON STD
30	FRC	1	0: OFF, 1: ON
31	POWER ON MODE INPUT	1	Refer to the following diagram
32	POWER ON MODE MULTI MODE	1	Refer to the following diagram
33	POWER ON MODE MULTI INPUT 1	1	1: INPUT1, 2: INPUT2, 3: INPUT3, 4: INPUT4, 5: INPUT5
34	POWER ON MODE MULTI INPUT 2	1	1: INPUT1, 2: INPUT2, 3: INPUT3, 4: INPUT4, 5: INPUT5
35	POWER ON MODE VOLUME	2	0~42, LAST: FF
36	SEAMLESS SW	1	0: OFF, 1: ON
37	SEAMLESS SW SELECT1	1	1: INPUT1, 2: INPUT2, 3: INPUT3, 4: INPUT4, 5: INPUT5
38	SEAMLESS SW SELECT2	1	1: INPUT1, 2: INPUT2, 3: INPUT3, 4: INPUT4, 5: INPUT5
39	MIRROR MODE	1	0: OFF, 1: X, 2: Y, 3: XY
40	MULTI SCREEN SET (S BY S SIZE)	1	1: NORMAL, 2: FULL
41	MULTI SCREEN SET (S BY S LAYOUT)	1	1: MODE1, 2: MODE2, 3: MODE3
42	MULTI SCREEN SET (PIP SIZE)	1	1~4
43	MULTI SCREEN SET (TRANSLUCENT PIP)	1	0: OFF, 1: 10%, 2: 20%, 3: 30%, 4: 40%, 5: 50%, 6: 60%, 7: 70%, 8: 80%
44	MULTI SCREEN SET (BANNER PIP)	1	0: OFF, 1: BOTTOM-1, 2: BOTTOM-2, 3: BOTTOM-3, 4: MID LOW, 5: MID HIGH, 6: TOP-3, 7: TOP-2, 8: TOP-1, 9: LEFT, A: RIGHT
45	MULTI SCREEN SET (BANNER INPUT)	1	1: INPUT1, 2: INPUT2
46	Main input function	3	Input function on the main-screen (refer to the following table)
47	Main-screen size information	1	Main-screen size (refer to the following table)
48	Check sum	2	(CS)
49	ETX	1	0x03

[QSO]: POWER ON MODE INPUT

Input function (response)	Input
0	LAST
1	INPUT1
2	INPUT2
3	INPUT3
4	INPUT4
5	INPUT5
A	MULTI

[QSO]: Main-screen size

Main-screen size (response)	Screen size
"0"	DOT BY DOT
"1"	4:3
"2"	FULL
"3"	ZOOM
"5"	WIDE
"6"	14:9
"9"	UNDERSCAN
"A"	2.35:1

[QSO]: POWER ON MODE MULTI MODE

Input function (response)	Input
1	SIDE BY SIDE1
2	SIDE BY SIDE2
3	SIDE BY SIDE3
4	BOTTOM LEFT
5	BOTTOM RIGHT
6	TOP RIGHT
7	TOP LEFT

[QSO]: Main-screen input function

Input function (response)	Input
"IN1"	INPUT1
"IN2"	INPUT2
"IN3"	INPUT3
"IN4"	INPUT4
"IN5"	INPUT5
"***"	No confirmation (at standby)

[QCI]: Response format

Order	Data Contents	Length (BYTE)	Value	
1	STX	1	0x02	
2	Echo back	3	"QCI"	
3	Time information	2		Time (24 hours system) If the data for the current time are fewer than two digits (0-9,) the higher-order digit will be padded with a zero.
		2		Minute If the data for the current minute are fewer than two digits (0-9,) the higher-order digit will be padded with a zero.
		2		Seconds If the data for the current second are fewer than two digits (0-9,) the higher-order digit will be padded with a zero.
4	Dummy data	8		All "*"
5	Days	1		Days (refer to the following table)
6	Check sum	2	(CS)	
7	ETX	1	0x03	

[QCI]: Days

Days (response)	Days
"1"	Sunday
"2"	Monday
"3"	Tuesday
"4"	Wednesday
"5"	Thursday
"6"	Friday
"7"	Saturday

[QSU]: To acquire data on the audio status

Order	Data Contents	Size	Remarks
1	STX	1Byte	02hex
2	Command echo back	3Byte	QSU (fixed)
3	Main volume	3Byte	000 - 042
4	Audio mute state	1Byte	0: OFF 1: ON
5	INPUT1 sub volume	3Byte	000 - 020
6	INPUT2 sub volume	3Byte	000 - 020
7	INPUT3 sub volume	3Byte	000 - 020
8	INPUT4 sub volume	3Byte	000 - 020
9	INPUT5 sub volume	3Byte	000 - 020
10	Check sum	2Byte	
11	ETX	1Byte	03hex

[QSI]: Response format

Data Arrangement		Data Length	Output Example
ECO		3 Byte	QSI
1	Type of drive sequence	3 Byte	60V
2	Standard/nonstandard	1 Byte	S
3	Type of ABL/WB tables	2 Byte	T1
4	Total value of PCN	4 Byte	0256
5	Total value of PRH	4 Byte	0256
6	Total value of PGH	4 Byte	0256
7	Total value of PBH	4 Byte	0256
8	Total value of PBR	4 Byte	0512
9	Total value of PRL	4 Byte	0512
10	Total value of PGL	4 Byte	0512
11	Total value of PBL	4 Byte	0512
12	Total value of ABL	3 Byte	128
13	Detection of V frequency	4 Byte	6002
14	Detection of existence of H	1 Byte	Y
15	Reserved	3 Byte	***
16	Obtained APL data	4 Byte	1023
17	Number of SUS pulses	4 Byte	0457
18	Result of detection of still picture	1 Byte	1
19	Result of detection of cracking in the panel	1 Byte	1
20	Result of detection for scanning protection	1 Byte	1
21	Result of detection for external protection	1 Byte	1
22	Transition of protection operation	1 Byte	0
23	Reserved	4 Byte	****
CS		2 Byte	27

14: Detection of existence of H	
N	No H
Y	H detected

18 to 20: Each protection operation status	
0	Setting OFF
1	Setting ON (waiting)
2	Setting ON (during operation)

22: Transition of brightness by protection operation	
0	Upper limit state for brightness
1	Brightness being reduced
2	Lower limit state for brightness
3	Brightness being increased

[QS2] Response format

Data Arrangement		Data Length	Output Example
ECO		3 Byte	QS2
1	Notification of mode shifting to STB	1 Byte	1
2	Flag for adjustment of the main unit	1 Byte	0
3	Flag for adjustment-data backup	1 Byte	0
4	"1st PD" data	1 Byte	0
5	"2nd PD" data	1 Byte	0
6	Still picture detection	1 Byte	0
7	Reserved	2 Byte	**
8	Temperature data (TEMP 1)	3 Byte	128 (*1)
9	SD main data	1 Byte	0
10	SD sub data	1 Byte	0
11	Operation status induced by SD	1 Byte	0
12	Data from the hour meter	8 Byte	00000259 (*2)
13	MASK indication	1 Byte	0
CS		2 Byte	4A

Note : (*1) : The unit scale is centigrade. The data is A/D value from the thermal sensor.

(*2) : "00000259" of "Data from the hour meter" means 2 hours 59 minutes.

6: Still picture detection	
0	Normal screen
1	Still picture

9: SD main data	
0	No SD
1	SQ-IC
2	MDU-IIC
3	RST2
4	TEMP

10-1: SD-Sub (SQ-IC)	
0	No SD-Sub data
1	Communication error
2	Drive stop
3	BUSY
6	Version mismatching

1: Notification of mode shifting to Standby	
0	Entering Standby mode failed
1	Entering Standby mode succeeded

2: Adjustment of the main unit	
0	Adjustment completed
1	Adjustment not completed

3: Adjustment-data backup	
0	With backup data
1	No data (default)

4, 5: PD data	
0	No PD data
1	Not used
2	POWER
3	SCAN
4	SCN-5V
5	Y-DRV
6	Y-DCDC
7	Y-SUS
8	ADRS
9	X-DRV
A	X-DCDC
B	X-SUS
C	Not used
D	Not used
E	Not used
F	UNKNOWN

10-2: SD-Sub (IIC)	
0	No SD-Sub data
1	EEPROM
2	BACKUP
3	DAC

10-3: SD-Sub (TEMP)	
0	No SD-Sub data
1	TEMP1
2	Reserved

11: Operation status induced by SD	
0	Normal
1	Relay-off completed
2	During warning indication

13: MASK indication	
0	MASK-OFF
1	MASK-ON

[QIP] Response format

Data Arrangement		Data Length	Output Example
ECO		3 Byte	QIP
1	SERIAL	15 Byte	-----
2	HOURLY METER	8 Byte	00000000
3	TOTAL HOUR METER	8 Byte	00000000
4	PON COUNTER	8 Byte	00000000
5	TEMP1 acquisition (Temperature value)	5 Byte	+23.5(*)
6	TEMPO acquisition (Temperature value)	5 Byte	+28.7(*)
7	MAX-TEMP1 acquisition (Temperature value)	5 Byte	+78.3(*)
8	Reserved	4 Byte	****
CS		2 Byte	94

(*) : Centigrade scale

[QAJ] Response format

Data Arrangement		Data Length	Output Example
ECO		3 Byte	QAJ
1	V-SUS adjustment value	3 Byte	128
2	V-OFT adjustment value	3 Byte	128
3	V-RST-P adjustment value	3 Byte	128
4	Reserved	3 Byte	***
5	XSB adjustment value	3 Byte	128
6	YSB adjustment value	3 Byte	128
7	YTG adjustment value	3 Byte	128
8	YTW adjustment value	3 Byte	128
9	RSW adjustment value	3 Byte	128
10	YTB adjustment value	3 Byte	128
11	RYW adjustment value	3 Byte	128
12	R-REVICE setting value	1 Byte	0
13	G-REVICE setting value	1 Byte	0
14	B-REVICE setting value	1 Byte	0
CS		2 Byte	B7

• For each REVICE setting value, the level set for RRL, RGL, or RBL is transmitted as one character.

[QPW]: Response format

Data Arrangement	Data Length	Output Example
ECO	3 Byte	QPW
1 Drive sequence	3 Byte	60V
2 Standard/nonstandard	1 Byte	S
3 Type of ABL/WB tables	2 Byte	T2
4 ABL adjustment value	3 Byte	128
5 R-HIGH adjustment value	3 Byte	256
6 G-HIGH adjustment value	3 Byte	256
7 B-HIGH adjustment value	3 Byte	256
8 R-LOW adjustment value	3 Byte	512
9 G-LOW adjustment value	3 Byte	512
10 B-LOW adjustment value	3 Byte	512
11 Gamma setting	1 Byte	A
12 Streaking correction	1 Byte	1
13 Peripheral luminance correction	1 Byte	0
14 Reserved	1 Byte	*
15 WB interlocked with APL	1 Byte	0
16 Transition of protective operations	1 Byte	0
17 Reserved	2 Byte	**
CS	2 Byte	37

1: Drive sequence

48V	Video 48 Hz
50V	Video 50 Hz
60V	Video 60 Hz
72V	Video 72 Hz
75V	Video 75 Hz
60P	PC 60 Hz
70P	PC 70 Hz

2: Standard / nonstandard

S	Standard
N	Nonstandard

3: Type of ABL/WB tables

Tn	n: 1 to 4
----	-----------

11: Gamma setting

n	0 to F
---	--------

12, 15: Setting for Items 12 and 15

0	OFF
1	ON

13: Peripheral luminance correction

0	OFF
2	ON (interlocked with APL)

16: Transition of brightness by protective operations

0	Upper limit state for brightness
1	Brightness being reduced
2	Lower limit state for brightness
3	Brightness being increased

[QPM]: Response format

Data Arrangement	Data Length	Output Example
ECO	3Byte	QPM
1 Pulse meter B 1	8Byte	00000000
2 Pulse meter B 2	8Byte	00000000
3 Pulse meter B 3	8Byte	00000000
4 Pulse meter B 4	8Byte	00000000
5 Pulse meter B 5	8Byte	00000000
CS	2Byte	E7

[QPD]: Response format

Data Arrangement	Data Length	Output Example
ECO	3 Byte	QPD
1 Latest "1st PD" data	1 Byte	A
2 Latest "2nd PD" data	1 Byte	2
3 Data from the hour meter for the latest PD	8 Byte	00010020
4 Second latest "1st PD" data	1 Byte	E
5 Second latest "2nd PD" data	1 Byte	9
6 Data from the hour meter for the second latest PD	8 Byte	00008523
7 Third latest "1st PD" data	1 Byte	4
8 Third latest "2nd PD" data	1 Byte	3
9 Data from the hour meter for the third latest PD	8 Byte	00004335
10 Fourth latest "1st PD" data	1 Byte	2
11 Fourth latest "2nd PD" data	1 Byte	0
12 Data from the hour meter for the fourth latest PD	8 Byte	00000945
13 Fifth latest "1st PD" data	1 Byte	4
14 Fifth latest "2nd PD" data	1 Byte	0
15 Data from the hour meter for the fifth latest PD	8 Byte	00000715
16 Sixth latest "1st PD" data	1 Byte	A
17 Sixth latest "2nd PD" data	1 Byte	2
18 Data from the hour meter for the sixth latest PD	8 Byte	00000552
19 Seventh latest "1st PD" data	1 Byte	A
20 Seventh latest "2nd PD" data	1 Byte	0
21 Data from the hour meter for the seventh latest PD	8 Byte	00000213
22 Eighth latest "1st PD" data	1 Byte	D
23 Eighth latest "2nd PD" data	1 Byte	0
24 Data from the hour meter for the eighth latest PD	8 Byte	000001A7
CS	2 Byte	27

1, 2, 4, 5: PD data

0	No PD
1	Not used
2	P-POWER
3	SCAN
4	SCN-5V
5	Y-DRIVE
6	Y-DCDC
7	Y-SUS
8	Address
9	X-DRIVE
A	X-DCDC
B	X-SUS
C	Not used
D	Not used
E	Not used
F	UNKNOWN

[QNG]: Response format

Order	Data Contents	Length (BYTE)	Value	
1	STX	1	0x02	
2	Echo back	3	"QNG"	
3	Latest SHOT DOWN information	12	Causes for the last 8 shutdowns, time data of the Hour Meter when a shutdown was generated, and sensor temperatures detected when a shutdown was generated (Refer to the following tables).	
4	Second latest SHOT DOWN information	12		
5	Third latest SHOT DOWN information	12		
6	Fourth latest SHOT DOWN information	12		
7	Fifth latest SHOT DOWN information	12		
8	Sixth latest SHOT DOWN information	12		
9	Seventh latest SHOT DOWN information	12		
10	Eighth latest SHOT DOWN information	12		
11	Check sum	2	(CS)	
12	ETX	1	0x03	

[QNG]: SHOT DOWN information

Order	Data Contents	Length (BYTE)	Value	
1	SD category information	1		SD category (refer to the following table) "0" if a shutdown was not generated.
2	SD subcategory information	1		Subcategory information (refer to the following table) "0" if a corresponding subcategory did not exist, or if a shutdown was not generated.
3	HOUR METER	5		Time data of the Hour Meter controlled by the Main microcomputer when a shutdown was generated. If the time data of the Hour Meter are fewer than five digits, the higher-order digits will be padded with zeros. "0" if a shutdown was not generated.
4	Dummy	2		All "0"
5	Temperature information	3		Sensor temperatures (in Celsius) detected when a shutdown was generated. If the temperatures are fewer than three digits, the higher-order digits will be padded with zeros. "0" if a shutdown was not generated.

[QNG]: SD category / SD subcategory

SD category (response)	SHOT DOWN factor	With/without subcategory	SD subcategory (response)	Bubcategory factor
"0"	No SD (no abnormality)	No	"0"	
"5"	Speaker short-circuit	No	"0"	
"6"	Module microcomputer communication failure	No	"0"	
"7"	Not used	—	—	—
"8"	IIC communication failure	With	"1"	EEPROM communication failure
			"3"	VIDEO SLOT IC1 (CVBS) communication failure
			"4"	VIDEO SLOT IC1 (Y/C) communication failure
			"5"	A/D Main (A system) communication failure
			"6"	A/D Sub (B system) communication failure
			"7"	IC6 communication failure
			"F"	VIDEO SLOT EEPROM communication failure
			"J"	AUDIO CONTROL IC communication failure
			"K"	Expansion I/O2 communication failure
			"L"	Temperature sensor failure
"A"	FAN stop	With	"1"	FAN stop
"B"	Temperature abnormality (high temperature)	With	"1"	High temperature of temperature sensor 1
			"2"	High temperature of temperature sensor 2
			"3"	High temperature of temperature sensor 3
			"4"	High temperature of temperature sensor 4
"D"	Power supply voltage abnormality	No	"0"	3.3V detection
"F"	Other abnormality	With	"1"	RLS cable comes off
			"2"	DC reducing voltage for COMM SLOT
			"3"	DC reducing voltage for VIDEO SLOT
"9"	Failure except the above (main microcomputer failure)	With	"0"	Except the above
			"Z"	Voltage abnormality (3.3V overvoltage) (only 607)

[QSD]: Response format

Command Format	Effective Operation Modes	Function	Remarks
[QSD]	All operations	To acquire data on the shutdown logs	Return data: 3 (ECO)+80(DATA)+2(CS)= 85 Byte

Data Arrangement		Data Length	Output Example
ECO		3Byte	QSD
1	Latest SD data	1byte	1
2	Latest SD subcategory data	1byte	0
3	Data from the hour meter for the latest SD	8byte	00752013
4	Second latest SD data	1byte	5
5	Second latest SD subcategory data	1byte	0
6	Data from the hour meter for the second latest SD	8byte	00495204
7	Third latest SD data	1byte	2
8	Third latest SD subcategory data	1byte	3
9	Data from the hour meter for the third latest SD	8byte	00100355
10	Fourth latest SD data	1byte	2
11	Fourth latest SD subcategory data	1byte	5
12	Data from the hour meter for the fourth latest SD	8byte	00075620
13	Fifth latest SD data	1byte	1
14	Fifth latest SD subcategory data	1byte	0
15	Data from the hour meter for the fifth latest SD	8byte	00000852
16	Sixth latest SD data	1byte	2
17	Sixth latest SD subcategory data	1byte	5
18	Data from the hour meter for the sixth latest SD	8byte	000000451
19	Seventh latest SD data	1byte	0
20	Seventh latest SD subcategory data	1byte	0
21	Data from the hour meter for the seventh latest SD	8byte	00000000
22	Eighth latest SD data	1byte	0
23	Eighth latest SD subcategory data	1byte	0
24	Data from the hour meter for the eighth latest SD	8byte	00000000
CS		2Byte	7D

• SD data

0	No SD
1	SQ-IC
2	MDU-IIC
3	RST2
4	TEMP

• SD subcategory (SQ-IC)

0	No SD-Sub data
1	Communication error
2	Drive stop
3	BUSY
6	Version mismatching

• SD subcategory (MDU-IIC)

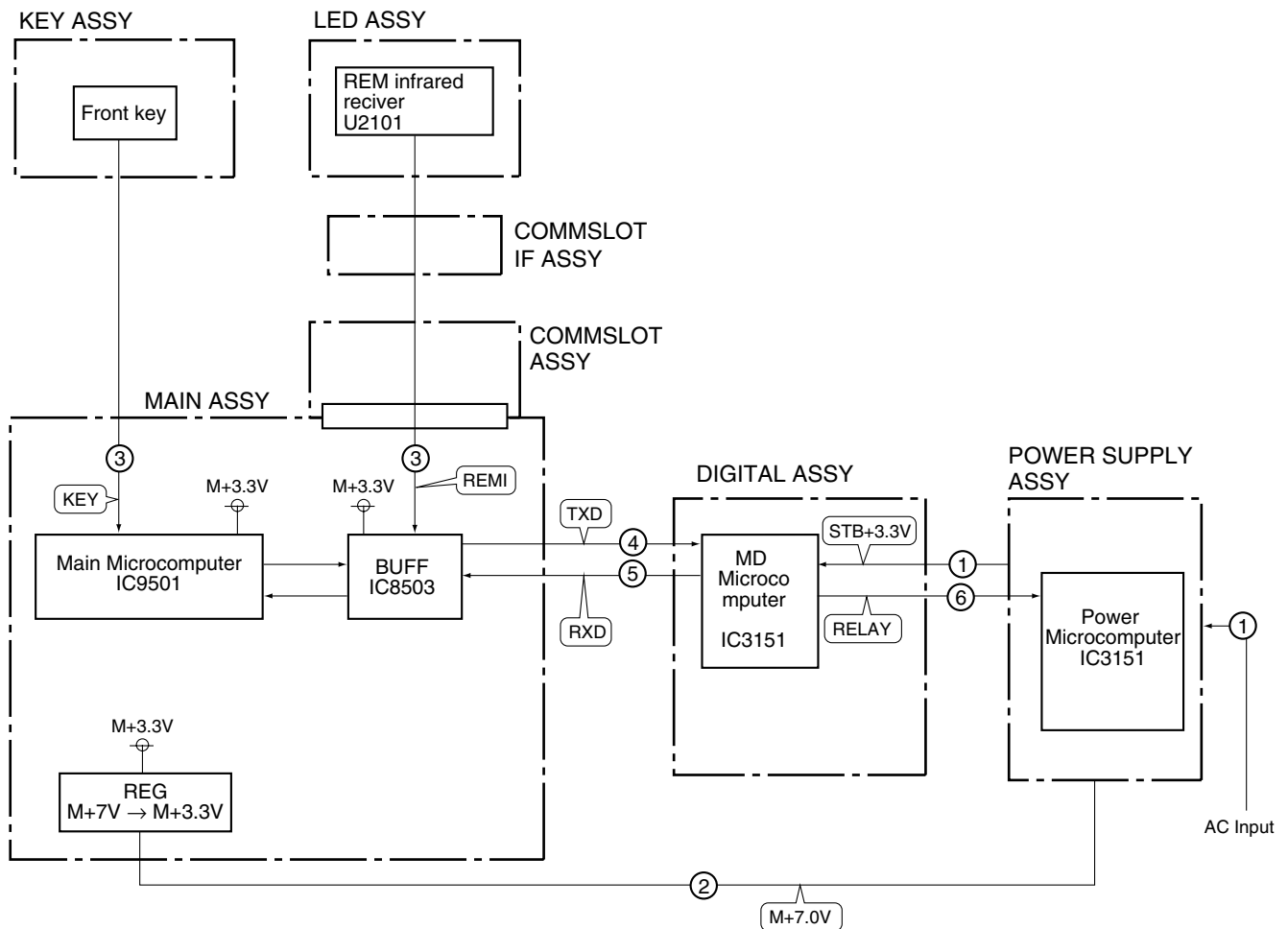
0	No SD-Sub data
1	EEPROM
2	BACKUP
3	DAC

• SD subcategory (TEMP)

0	No SD-Sub data
1	TEMP1
2	Reserved

10. GENERAL INFORMATION

10.1 POWER ON SEQUENCE



Outline of operations

- ① Once AC power is input, 3.3 V power is supplied to the MD microcomputer by the Power Unit. Then the MD microcomputer starts up.
- ② Once the Main power switch on the main unit is set to ON, M+7 V power is supplied to the Main microcomputer by the Power Unit. Then the Main microcomputer starts up.
- ③ A power-on request can be issued from a key on the main unit or on the remote control unit.
- ④ After confirming a QS2 (checking of SD or PD), the Main microcomputer issues a PON command.
- ⑤ The MD microcomputer returns a PON echo to the Main microcomputer.
- ⑥ The MD microcomputer sends the RELAY signal to start up the Power microcomputer.

10.2 POWER ON/OFF FUNCTION FOR THE LARGE-SIGNAL SYSTEM

Function:

It is an operational mode where the digital signal processing performs circuit operation but the power is not supplied to the panel driving system (large signal system) in order to avoid a power down.

Application:

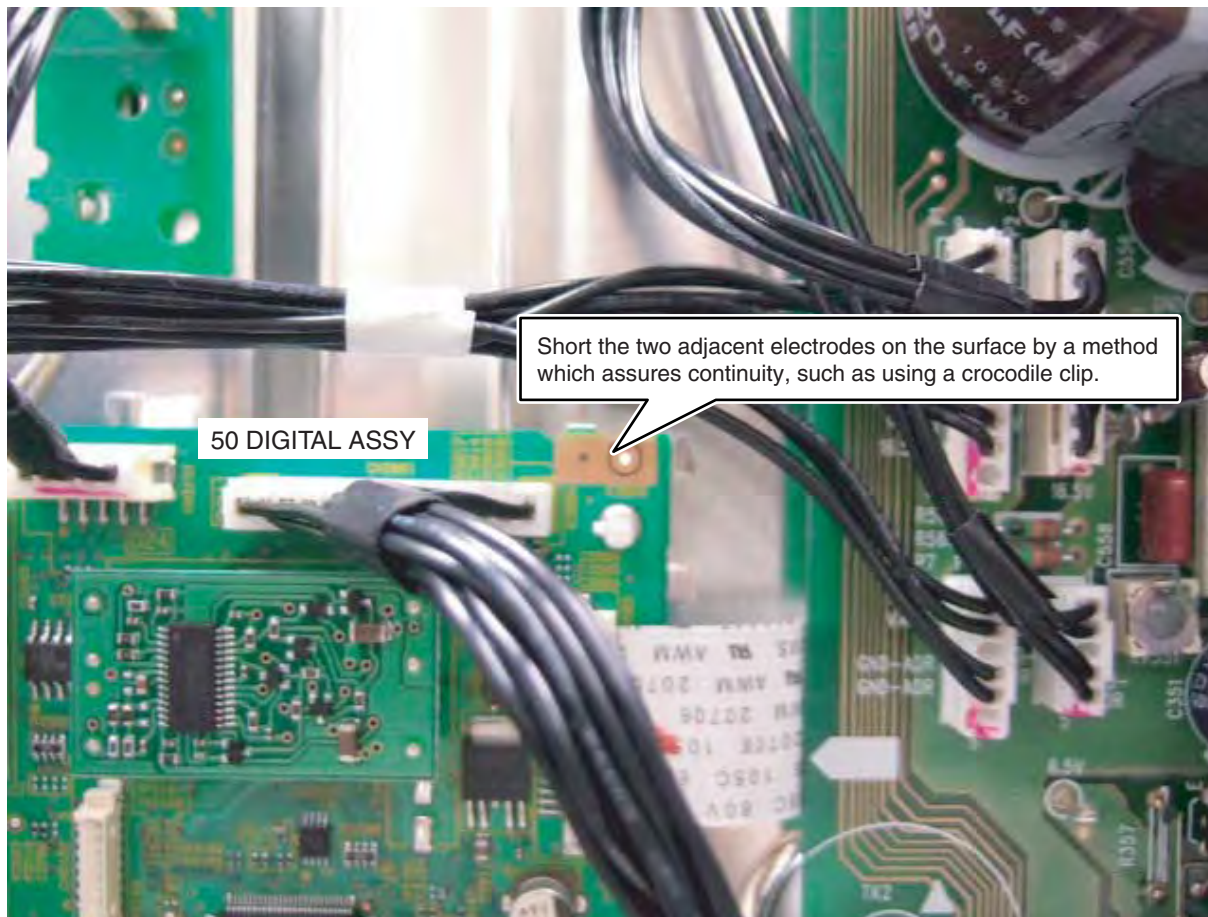
1. When it is necessary to check whether the signal output is correctly reaching the drive system in a repairing activity etc.
2. In the case of a PD, to determine whether the problem is with the large signal system power supply or with the small signal system power supply.

Method:











1. Make shorting between the specified location (refer to the illustration below) of the PCB surface of the 50 DIGITAL ASSY and the nearby pattern.
2. Execute [DRV S00] by RS232C command. ([DRV S01] for release)

Supplemental explanation:

- When the large signal system power supply is in OFF state, there will be no PD, except PS_PD, as the PD signal has been muted.
- If the clip is removed in the OFF state of the large signal system power supply, PD will take place at the instance of clip removal. Therefore, be sure to remove the clip after turning the power OFF.
- Under RS232C command control, [DRVS01] (release) is possible during power ON. However, there is a possibility of damaging the set. Therefore, make this operation only after turning the power OFF.
- Command [DRVS00/S01] is effective even during standby. When the main power is turned OFF, however, [DRVS01] (release) will be effective.



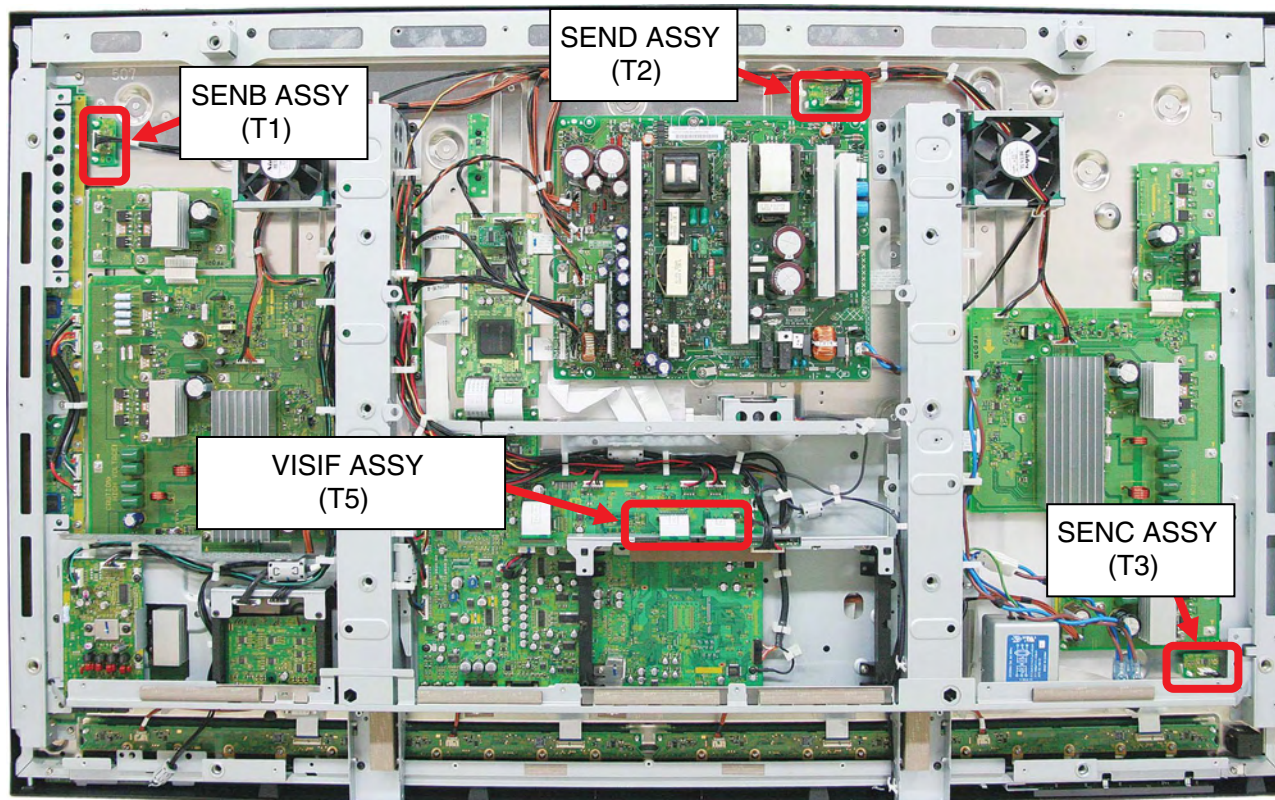
10.3 LED INFORMATION

Status	LED Lighting Pattern				Remarks
Power OFF (Indicator OFF)	Not lit	Red Green			
Power ON (Indicator ON)	Green: Lit	Red Green			
Standby	Red: Lit	Red Green			
Power Management	Green flashes at intervals of 1000ms	Red Green			
Power-Down	Red flashes at intervals of 500ms for 1 to n times with 2500ms of pause between switching.	Red Green			
Shutdown	Green flashes at intervals of 500ms for 1 to n times with 2500ms of pause between switching.	Red Green			
No Backup Copy (Panel)	Red lit, and green flashes at intervals of 200ms	Red Green			
During Main micro-computer rewriting	Red flashes at intervals of 300ms	Red Green			
During MD micro-computer rewriting (During MOD)	Red flashes at intervals of 100ms	Red Green			
During ASTRA rewriting (During PNL)	Red and green flashes at intervals of 100ms	Red Green			

10.4 FAN CONTROL

The fan is controlled according to data on temperatures detected by T1-T3 and T5 sensors.

Location of the temperature sensors



Fan control during normal installation of the PDP

Set the settings for OPTION and FAN CONTROL in INTEGRATOR to AUTO:

AUTO control

(Unit: °C)

Change of the rotation speed of the fan	Without a slot mechanism/with the slot mechanism manufactured by Pioneer	With a slot mechanism manufactured by another maker
OFF ⇔ L	60	61
L ⇔ M	63	64
M ⇔ H	67	67
Abnormal temperature	82	82

- The rotation speed of the fan is controlled according to signals from T1-T3 and T5 temperature sensors, as shown above:
- As the hysteresis when switching the fan speed, the state just before switching is maintained for 30 seconds.
- If the temperature rises to a level defined as abnormal, shutdown procedures will follow.
- Even if the detected temperature falls below the temperature at which the fan speed is defined to be switched from L to OFF, the fan keeps rotating at the L speed and does not stop. Rotation of the fan is canceled only when the power is turned off then back on again.

Fan control while the unit is installed in a special orientation

- When the unit is installed 90° from normal or upside down, with the screen side upward set the settings for OPTION and FAN CONTROL in INTEGRATOR to MAX (mode in which the fan rotation speed is always high).

11. SPECIFICATIONS

11.1 MAIN SPECIFICATIONS

Specifications

General (PDP-507CMX)

Light emission panel 50V type AC Plasma Panel
110.36 cm (W) x 62.09 cm (H) x 126.63 cm (diagonal)
Number of pixels 1365 x 768
Power supply AC 120 V, 60 Hz
Rated current 3.1 A
Standby power consumption 0.6 W
External dimensions
..... 1222 mm (W) x 736 mm (H) x 99 mm
(D: Not including handles)
48-1/8 in. (W) x 28-31/32 in. (H) x 3-29/32 in.
(D: Not including handles)
Weight 35.5 kg (78.3 lbs.)
Operating temperature range 0 °C to 40 °C

General (PDP-50MXE20/PDP-50MXE20-S)

Light emission panel 50V type AC Plasma Panel
110.36 cm (W) x 62.09 cm (H) x 126.63 cm (diagonal)
Number of pixels 1365 x 768
Power supply AC 100 V to 240 V, 50 Hz/60 Hz
Rated current 3.7 A to 1.5 A
Standby power consumption 0.6 W
External dimensions
..... 1222 mm (W) x 736 mm (H) x 99 mm
(D: Not including handles)
Weight 35.5 kg
Operating temperature range 0 °C to 40 °C

Input/output Video

INPUT1

Input Mini D-sub 15 pin (socket connector)
RGB signal (G ON SYNC compatible)
RGB ... 0.7 Vp-p/75 Ω/no sync.
HD/VS, VD ... TTL level
/positive and negative polarity
/2.2 kΩ
G ON SYNC
... 1 Vp-p/75 Ω/negative sync.
*Compatible with Microsoft “Plug & Play”
(VESA DDC 1/2B)

Output Mini D-sub 15 pin (socket connector)
75 Ω/with buffer

INPUT2

Input DVI-D 24-pin connector
Digital RGB signal (DVI compliant TMDS
signal)
*Compatible with Microsoft “Plug & Play”
(VESA DDC 2B)

Audio

Input AUDIO INPUT (for INPUT1)
Stereo mini jack
L/R ... 500 mVrms/more than 10 kΩ

AUDIO INPUT (for INPUT2)
Stereo mini jack
L/R ... 500 mVrms/more than 10 kΩ

Output AUDIO OUTPUT
Stereo mini jack
L/R ... 500 mVrms (max)/less than 5 kΩ

SPEAKER
L/R ... 6 Ω to 16 Ω/9 W +9 W (at 6 Ω)

Control

RS-232C... D-sub 9 pin (pin connector)
COMBINATION IN/OUT
... Mini DIN 6 pin (x2)

Accessories

Power cord (2 m/6.6 feet) 1
Remote control unit 1
AA (R6) batteries 2
Cleaning cloth (for screen) 1
Speed clamps 3
Bead bands 3
Ferrite cores (for audio cables) 3
Operating Instructions 1
Warranty 1

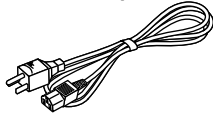
• Due to improvements, specifications and design are subject to
change without notice.

11.2 ACCESSORIES

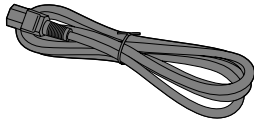
Checking supplied accessories

Check that the following accessories were supplied.

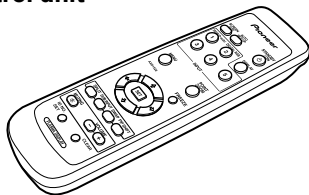
- ① **Power cord (2 m/6.6 feet)**
[ADG1215] : PDP-507CMX/KUC Only



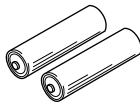
- ① **Power cord**
[VEM1031 & AEX1025] : PDP-50MXE20, 50MXE20-S



- ② **Remote control unit**
[AXD1528]



- ③ **Batteries (x 2)**

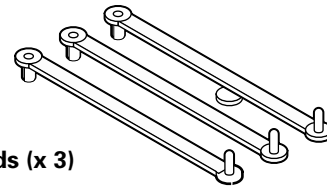


- ④ **Cleaning cloth (for screen)**
[AED1285]

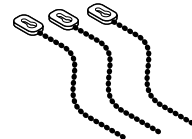


Binder Assy [AEC1908]

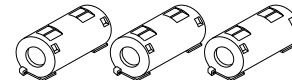
- ⑤ **Speed clamps (x 3)**



- ⑥ **Bead bands (x 3)**



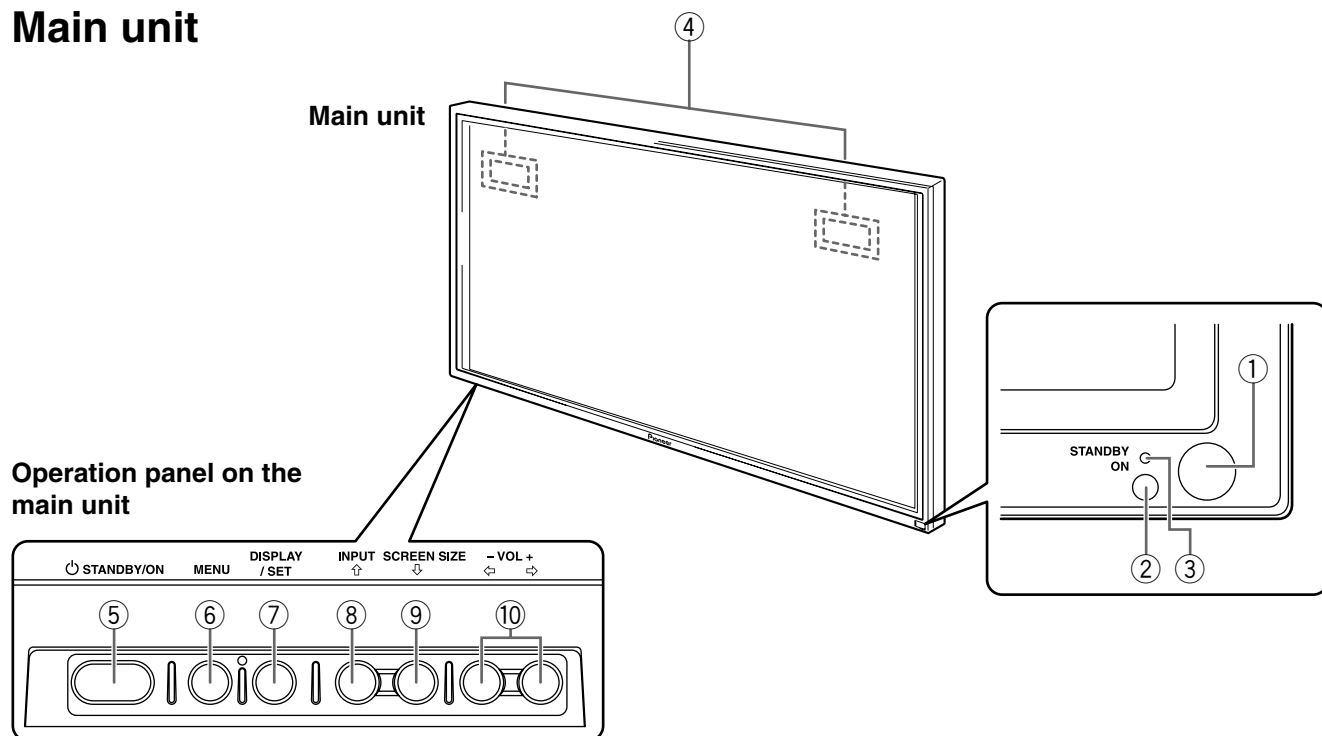
- ⑦ **Ferrite cores (x 3) (for audio cables)**
[ATX1039] : Expect PDP-507CMX/KUC



- These Operating Instructions [ARD1075]
- Warranty

11.3 PANEL FACILITIES

Main unit



Main unit

- ① **Remote control sensor**
Point the remote control toward the remote sensor to operate the unit.
- ② **Ambient light sensor**
This sensor measures the level of light inside the viewing room; it is enabled when the [ENERGY SAVE] option is set to [AUTO].
- ③ **STANDBY/ON indicator**
When the unit is operating:
The indicator lights green.
When flashing, the indicator is used to indicate error messages.
The indicator flashes green once every one second when the [POWER MGT.] function is operating.

When the unit is in standby mode:
The indicator lights red.
When flashing, the indicator is used to indicate error messages.
- ④ **Handles**

Operation panel on the main unit

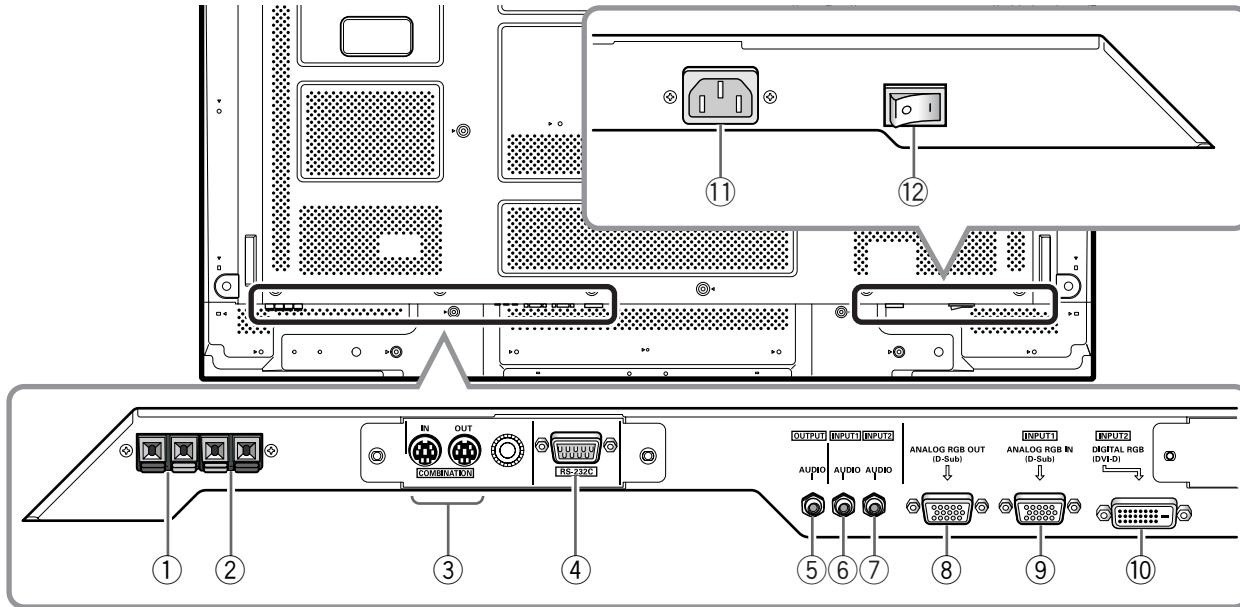
- ⑤ **STANDBY/ON button (⏻)**
Press to put the display in operation or standby mode.
- ⑥ **MENU button**
Press to open and close the on-screen menu.
- ⑦ **DISPLAY/SET button**
Use to confirm onscreen menu selections, and to change settings.
When not indicated by onscreen menus, used to display the current set status.
- ⑧ **INPUT (↶) button**
Except when menu screen is displayed, this button operates to change the input.
- ⑨ **SCREEN SIZE (↴) button**
Except when menu screen is displayed, this button operates to change the screen size.
- ⑩ **VOL +/- (↵/↶) buttons**
When not indicated for use in onscreen menu items, these buttons are used for adjusting the sound volume .

A Connection panel

The connection panel is provided with two video input terminals and one video output terminal. Audio input/output and speaker output terminals are also provided. For instructions regarding connections, consult the pages noted in parentheses by each item.

B

C



① SPEAKER (R) terminal

For connection of an external right speaker. Connect a speaker that has an impedance of 6 Ω .

② SPEAKER (L) terminal

For connection of an external left speaker. Connect a speaker that has an impedance of 6 Ω .

③ COMBINATION IN/OUT

Never connect any component to these connectors without first consulting your Pioneer installation technician.

These connectors are used for Plasma Display setup adjustments.

④ RS-232C

Never connect any component to this connector without first consulting your Pioneer installation technician.

This connector is used for Plasma Display setup adjustments.

⑤ AUDIO (OUTPUT) (Stereo mini jack)

Use to output the audio of the selected source component connected to this unit to an AV amplifier or similar component.

Note: No sound is produced from the AUDIO (OUTPUT) jack when the MAIN POWER switch is set to OFF or ON (standby).

⑥ AUDIO (INPUT1) (Stereo mini jack)

Use to obtain sound when INPUT1 is selected. Connect the audio output jack of components connected to INPUT1 to this unit.

⑦ AUDIO (INPUT2) (Stereo mini jack)

Use to obtain sound when INPUT2 is selected. Connect the audio output jack of components connected to INPUT2 to this unit.

⑧ ANALOG RGB OUT (INPUT1) (mini D-sub 15 pin)

Use the ANALOG RGB OUT (INPUT1) terminal to output the video signal to an external monitor or other component.

Note: The video signal will not be output from the ANALOG RGB OUT (INPUT1) terminal when the main power of this unit is off or in standby mode.

⑨ ANALOG RGB IN (INPUT1) (mini D-sub 15 pin)

For connection of a personal computer (PC) or similar component. Make sure that the connection made corresponds to the format of the signal output from the connected component.

⑩ DIGITAL RGB (INPUT2) (DVI-D jack)

Use to connect a computer.

Note: This unit does not support the display of copyguard-protected video signals (page 13).

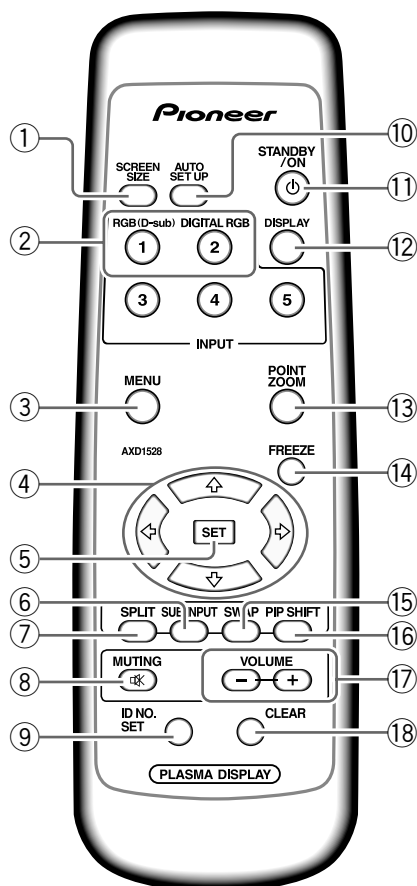
⑪ AC IN

Use to connect the supplied power cord to an AC outlet.

⑫ MAIN POWER switch

Use to switch the main power of the unit on and off.

Remote control unit



When handling the remote control unit

- Do not drop the remote control unit or expose it to moisture.
- Do not use the remote control unit in a location subject to direct sunlight, heat radiation from a heater, or in a place subject to excessive humidity.
- When the remote control unit's batteries begin to wear out, the operable distance will gradually become shorter. When this occurs, replace all batteries with new ones as soon as possible.

- ① **SCREEN SIZE button**
Press to select the screen size.
- ② **INPUT buttons**
Press to select the input.
- ③ **MENU button**
Press to open and close the on-screen menu.
- ④ **ADJUST (▲ / ▼ / ► / ◄) buttons**
Use to navigate menu screens and to adjust various settings on the unit.

- ⑤ **SET button**
Press to adjust or enter various settings on the unit.
- ⑥ **SUB INPUT button**
During multi-screen display, use this button to change inputs to subscreens.
- ⑦ **SPLIT button**
Press to switch to multi-screen display.
- ⑧ **MUTING button**
Press to mute the volume.
- ⑨ **ID NO. SET button**
Button used by professional installers.
- ⑩ **AUTO SET UP button**
When using computer signal input, automatically sets the [POSITION], [CLOCK] and [PHASE] to optimum values.
- ⑪ **STANDBY/ON button (⏻)**
Press to put the unit in operation or standby mode.
- ⑫ **DISPLAY button**
Press to view the unit's current input and setup mode.
- ⑬ **POINT ZOOM button**
Use to select and enlarge one part of the screen.
- ⑭ **FREEZE button**
When memo screen function is enabled, a still image is displayed in the subscreen.
- ⑮ **SWAP button**
During multi-screen display, use this button to switch between main screen and subscreen.
- ⑯ **PIP SHIFT button**
When using the picture-in-picture mode with multi-screen display, use this button to move the position of subscreen.
- ⑰ **VOLUME (+/-) buttons**
Use to adjust the volume.
- ⑱ **CLEAR button**
Button used by professional installers.

11.4 ADDITIONAL INFORMATION

Appendix 1: Computer signal compatibility table

Appendix 1-1/2 (INPUT 1)

: Not available.

Resolution (Dot x Line)	Refresh rate		Screen size (Dot x line)			Remarks
	Vertical	Horizontal	DOT BY DOT	4:3	FULL	
640x400	70.1 Hz	31.5 kHz	○ 640x480		○ 1365x768	NEC PC-9800
720x400	70.1 Hz	31.5 kHz	○ 720x400		○ 1365x768	NEC PC-9800
	85.1 Hz	37.9 kHz	↑		↑	
640x480	59.9 Hz	31.5 kHz	○ 640x480	○ 1024x768	○ 1365x768	
	66.7 Hz	35.0 kHz	↑	↑	↑	Apple Macintosh 13"
	72.8 Hz	37.9 kHz	↑	↑	↑	
	75 Hz	37.5 kHz	↑	↑	↑	
	85 Hz	43.3 kHz	↑	↑	↑	
	100.4 Hz	51.1 kHz	↑	↑	↑	I/O DATA
	120.4 Hz	61.3 kHz	↑	↑	↑	I/O DATA
848x480	60 Hz	31.0 kHz	○ 848x480		○ 1365x768	
852x480	60 Hz	31.7 kHz	○ 852x480		○ 1365x768	I/O DATA
800x600	56.3 Hz	35.2 kHz	○ 800x600	○ 1024x768	○ 1365x768	
	60.3 Hz	37.9 kHz	↑	↑	↑	
	72.2 Hz	48.1 kHz	↑	↑	↑	
	75 Hz	46.9 kHz	↑	↑	↑	
	85.1 Hz	53.7 kHz	↑	↑	↑	
	99.8 Hz	63.0 kHz	↑	↑	↑	I/O DATA
	120 Hz	75.7 kHz	↑	↑	↑	I/O DATA
832x624	74.6 Hz	49.7 kHz	○ 832x624	○ 1024x768	○ 1365x768	Apple Macintosh 16"
1024x768	60 Hz	48.4 kHz	◎ 1024x768		○ 1365x768	
	60 Hz	49.7 kHz	↑		↑	Work station (SGI)
	70.1 Hz	56.5 kHz	↑		↑	
	75 Hz (74.9 Hz)	60.0 kHz (60.2 kHz)	↑		↑	() indicates Apple Macintosh 19"
	85 Hz	68.7 kHz	↑		↑	
	100.6 Hz	80.5 kHz	↑		↑	I/O DATA
	119.4 Hz	95.5 kHz	↑		↑	
1280x768	56.2 Hz	45.1 kHz	○ 1280x768		△ 1365x768	
	59.8 Hz	48 kHz	↑		↑	
	69.8 Hz	56 kHz	↑		↑	
1360x768	60 Hz	47.7 kHz	○ 1360x768		△ 1365x768	I/O DATA
1376x768	59.9 Hz	48.3 kHz			△ 1365x768	I/O DATA
1280x800	59.8 Hz	49.7 kHz			△ 1365x768	CVT
1280x854	60 Hz	53.1 kHz			△ 1365x768	PC
1152x864	60 Hz	53.7 kHz		△ 1024x768	△ 1365x768	
	72 Hz	64.9 kHz		↑	↑	
	75 Hz	67.5 kHz		↑	↑	
1152x870	75.1 Hz	68.7 kHz		△ 1024x768	△ 1365x768	Apple Macintosh 21"
1152x900	66 Hz	61.8 kHz		△ 1024x768	△ 1365x768	Sun Microsystems LO
	76 Hz	71.7 kHz		↑	↑	Sun Microsystems HI

Resolution (Dot x Line)	Refresh rate		Screen size (Dot x line)			Remarks
	Vertical	Horizontal	DOT BY DOT	4:3	FULL	
1440x900	59.9 Hz	55.9 kHz			△ 1365x768	Apple Macintosh 17"
1280x960	60 Hz	60.0 kHz		△ 1024x768	△ 1365x768	
	85 Hz	85.9 kHz		↑	↑	
1280x1024	60 Hz	64.0 kHz		△ 960x768	△ 1365x768	Work station (SGI)
	60 Hz	64.6 kHz		↑	↑	Work station (EWS4800)
	71.2 Hz	75.1 kHz		↑	↑	Work station (EWS4800)
	72 Hz	78.1 kHz		↑	↑	Work station (HP)
	75 Hz	80.0 kHz		↑	↑	
	76.1 Hz	81.1 kHz		↑	↑	Work station (SUN)
	85 Hz	91.1 kHz		↑	↑	
	100.1 Hz	108.5 kHz		↑	↑	I/O DATA
1400x1050	60 Hz	65.3 kHz		△ 1024x768	△ 1365x768	
	75 Hz	82.3 kHz		↑	↑	
	85 Hz	93.9 kHz		↑	↑	
1680x1050	60 Hz	65.3 kHz			△ 1365x768	
1600x1200	60 Hz	75.0 kHz		△ 1024x768	△ 1365x768	
	65 Hz	81.3 kHz		↑	↑	
	70 Hz	87.5 kHz		↑	↑	
	75 Hz	93.8 kHz		↑	↑	
	85 Hz	106.3 kHz		↑	↑	
1920x1200	59.9 Hz	74.6 kHz			△ 1365x768	CVT
1920x1200RB	60 Hz	74.0 kHz			△ 1365x768	CVT

◎ : Optimal picture. Adjustment of picture position, refresh rate, phase etc., may be necessary.

○ : Picture will be enlarged but some fine detail will be hard to see.

△ : Simple reproduction. Fine detail will not be reproduced.

Appendix 1-2/2 (INPUT2)

: Not available.

Resolution (Dot x Line)	Refresh rate		Screen size (Dot x line)			Remarks
	Vertical	Horizontal	DOT BY DOT	4:3	FULL	
640x480	59.9 Hz	31.5 kHz	○ 640x480	○ 1024x768	○ 1365x768	
	72.8 Hz	37.9 kHz	↑	↑	↑	
	75 Hz	37.5 kHz	↑	↑	↑	
	85 Hz	43.3 kHz	↑	↑	↑	
	100.4 Hz	51.1 kHz	↑	↑	↑	
	120.4 Hz	61.3 kHz	↑	↑	↑	
720x400	70.1 Hz	31.5 kHz	○ 720x400		○ 1365x768	NEC PC-9800
	85.1 Hz	37.9 kHz	↑		↑	
848x480	60 Hz	31.0 kHz	○ 848x480		○ 1365x768	
852x480	60 Hz	31.7 kHz	○ 852x480		○ 1365x768	
800x600	56.3 Hz	35.2 kHz	○ 800x600	○ 1024x768	○ 1365x768	
	60.3 Hz	37.9 kHz	↑	↑	↑	
	72.2 Hz	48.1 kHz	↑	↑	↑	
	75 Hz	46.9 kHz	↑	↑	↑	
	85.1 Hz	53.7 kHz	↑	↑	↑	
	99.8 Hz	63.0 kHz	↑	↑	↑	
	120 Hz	75.7 kHz	↑	↑	↑	

A

: Not available.

Resolution (Dot x Line)	Refresh rate		Screen size (Dot x line)			Remarks
	Vertical	Horizontal	DOT BY DOT	4:3	FULL	
1024x768	60 Hz	48.4 kHz	◎ 1024x768		○ 1365x768	
	60 Hz	49.7 kHz	↑		↑	Work station (SGI)
	70.1 Hz	56.5 kHz	↑		↑	
	75 Hz	60.0 kHz	↑		↑	
	85 Hz	68.7 kHz	↑		↑	
	100.6 Hz	80.5 kHz	↑		↑	
1280x768	56.2 Hz	45.1 kHz	○ 1280x768		△ 1365x768	
	59.8 Hz	48 kHz	↑		↑	
	69.8 Hz	56 kHz	↑		↑	
1280x800	59.8 Hz	49.7 kHz			△ 1365x768	
1280x854	60 Hz	53.1 kHz			△ 1365x768	
1360x768	60 Hz	47.7 kHz	○ 1360x768		△ 1365x768	I/O DATA
1376x768	59.9 Hz	48.3 kHz			△ 1365x768	I/O DATA
1152x864	60 Hz	53.7 kHz		△ 1024x768	△ 1365x768	
	72 Hz	64.9 kHz		↑	↑	
	75 Hz	67.5 kHz		↑	↑	
1152x900	66 Hz	61.8 kHz		△ 1024x768	△ 1365x768	Work station (SUN)
	76 Hz	71.7 kHz		↑	↑	Work station (SUN)
1440x900	59.9 Hz	55.9 kHz			△ 1365x768	Apple Macintosh17"
1280x960	60 Hz	60.0 kHz		△ 1024x768	△ 1365x768	
	85 Hz	85.9 kHz		↑	↑	
1280x1024	60 Hz	64.0 kHz		△ 960x768	△ 1365x768	Work station (SGI)
	60 Hz	64.6 kHz		↑	↑	Work station (EWS4800)
	71.2 Hz	75.1 kHz		↑	↑	Work station (EWS4800)
	72 Hz	78.1 kHz		↑	↑	Work station (HP)
	76.1 Hz	81.1 kHz		↑	↑	Work station (SUN)
	75 Hz	80.0 kHz		↑	↑	
	85 Hz	91.1 kHz		↑	↑	
1400x1050	60 Hz	65.3 kHz		△ 1024x768	△ 1365x768	
1680x1050	60 Hz	65.3 kHz			△ 1365x768	
1920x1080	50 Hz	56.2 kHz			△ 1365x768	
	60 Hz	57.5 kHz			↑	
1600x1200	60 Hz	75.0 kHz		△ 1024x768	△ 1365x768	
1920x1200RB	60 Hz	74.0 kHz			△ 1365x768	CVT

Note

In rare cases, a normal picture may not be obtained when switching between compatible signal formats on the output device (PC, etc.).

Should this happen, turn off the power and then turn it back on again.

◎ : Optimal picture. Adjustment of picture position, refresh rate, phase etc., may be necessary.

○ : Picture will be enlarged but some fine detail will be hard to see.

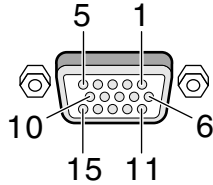
△ : Simple reproduction. Fine detail will not be reproduced.

F

Appendix 2: INPUT1/2 pin assignments

Appendix 2-1/2:

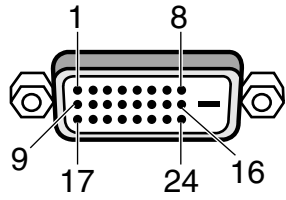
INPUT1 (Mini D-sub 15 pin female connector) pin allocation.



Pin No.	Input	Output
1	R	←
2	G	←
3	B	←
4	NC (No connection)	←
5	GND	←
6	GND	←
7	GND	←
8	GND	←
9	DDC + 5V	NC (No connection)
10	GND	←
11	NC (No connection)	←
12	DDC SDA	NC (No connection)
13	HD or H/V SYNC	←
14	VD	←
15	DDC SCL	NC (No connection)

Appendix 2-2/2:

INPUT2 (DVI female connector) pin allocation.



Pin No.	Signal Assignment
1	T.M.D.S. Data2-
2	T.M.D.S. Data2+
3	T.M.D.S. Data2/4 Shield
4	NC (No connection)
5	NC (No connection)
6	DDC Clock
7	DDC Data
8	NC (No connection)
9	T.M.D.S. Data1-
10	T.M.D.S. Data1+
11	T.M.D.S. Data1/3 Shield
12	NC (No connection)
13	NC (No connection)
14	+5V Power
15	GND
16	Hot Plug Detect
17	T.M.D.S. Data0-
18	T.M.D.S. Data0+
19	T.M.D.S. Data0/5 Shield
20	NC (No connection)
21	NC (No connection)
22	T.M.D.S. Clock Shield
23	T.M.D.S. Clock+
24	T.M.D.S. Clock-

12. IC INFORMATION

A • The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

● List of IC

PEE003B-K, SN755870KPZT, TC7SH08FUS1, TC74VHC00FTS1, AXF1163, LM3478MMX, MD3222N, THC63LVD104AF-K, MP2367DN-LF, NCP5211BDG

■ PEE003B-K (50ADDRESS L ASSY:IC1601, 50ADDRESS S ASSY : IC1801)

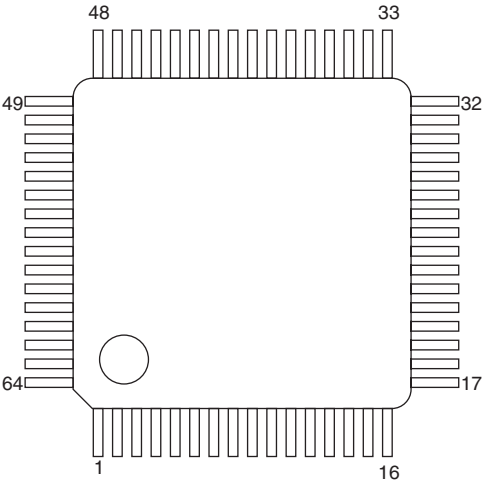
• LVDS Receiver

● Pin Function

No.	I/O	Name
1	LRGND	
2	bb_silcdhsip_7c19a	RAMP1
3	bb_silcdhsip_7c19a	RAPP1
4	bb_silcdhsip_7c19a	RBMP1
5	bb_silcdhsip_7c19a	RBPP1
6	LRVDD	
7	bb_silcdhsip_7c19a	RCMP1
8	bb_silcdhsip_7c19a	RCPP1
9	bb_silcdhsip_7c19a	RCLKMP1
10	bb_silcdhsip_7c19a	RCLKPP1
11	bb_silcdhsip_7c19a	RDMP1
12	bb_silcdhsip_7c19a	RDPP1
13	LRGND	
14	LPGND	
15	LPVDD	
16	SIBTD	TEST0
17	SIBTD	TEST1
18	SIBTD	PHSSEL1
19	SIBTD	PHSSEL0
20	SIBTD	DIV0
21	SIBTD	DIV1
22	GND	
23	VDD	
24	VDD	
25	SOT4L	R_E
26	SOT4L	G_E
27	SOT4L	B_E
28	GND	
29	SOT4L	ADRSV3
30	SOT4L	R_D
31	SOT4L	G_D
32	SOT4L	B_D
33	VDD	
34	SOT8FL	LE
35	GND	
36	SOT12FL	CLKOUT
37	VDD	
38	SOT4L	ADR_B
39	SOT4L	ADR_D
40	SOT4L	ADR_U

No.	I/O	Name
41	SOT4L	ADR_G
42	SOT4L	LBLK
43	SOT4L	HBLK
44	GND	
45	SOT4L	HZ
46	SOT4L	R_C
47	SOT4L	G_C
48	SOT4L	B_C
49	VDD	
50	SOT4L	ADRSV2
51	SOT4L	R_B
52	GND	
53	SOT4L	G_B
54	SOT4L	B_B
55	GND	
56	VDD	
57	SOT4L	ADRSV1
58	VDD	
59	SOT4L	R_A
60	SOT4L	G_A
61	GND	
62	SOT4L	B_A
63	SOT4L	ADRSV0
64	SISTD	OE

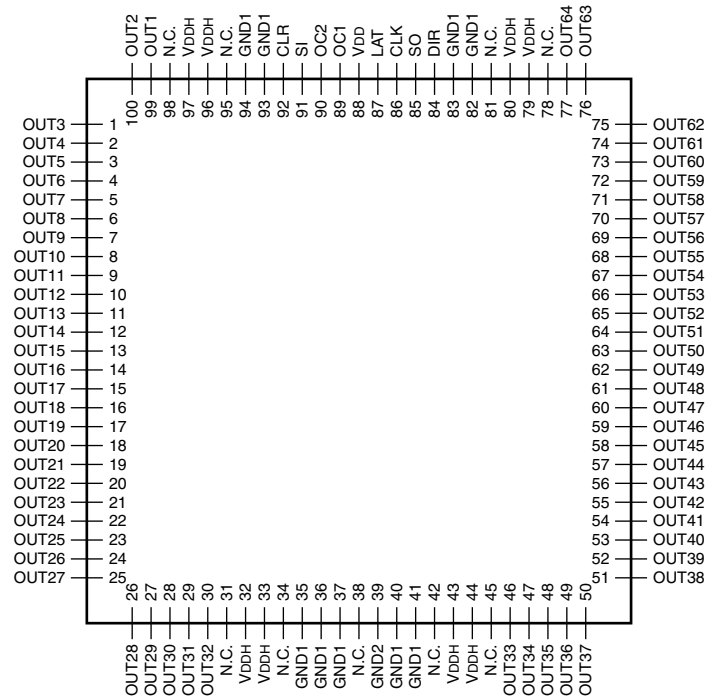
● Pin Arrangement (Top view)



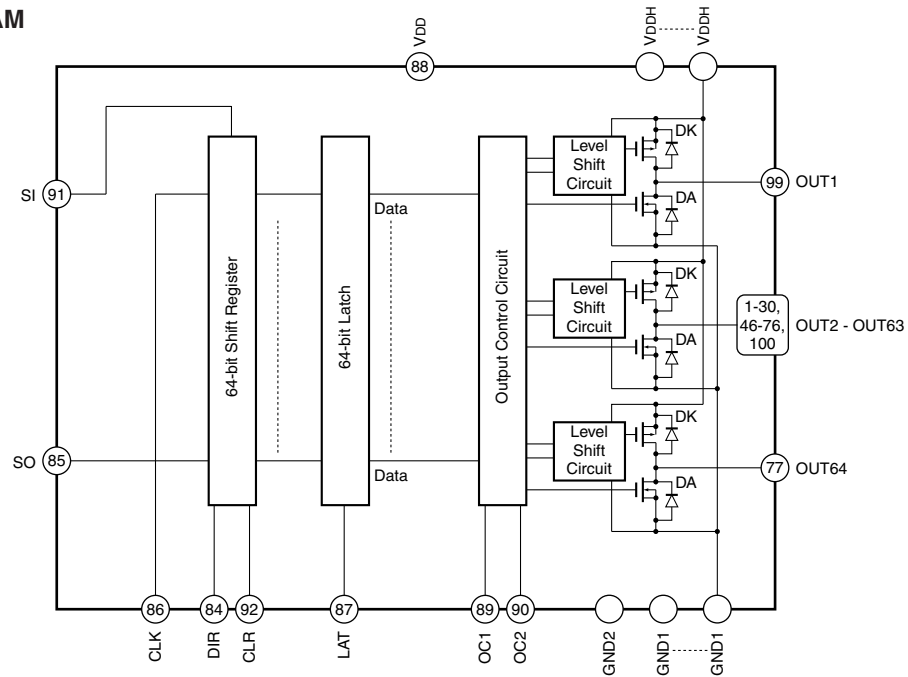
■ **SN755870KPZT-P (50 SCAN A ASSY : IC2801 - IC2806)**
(50 SCAN B ASSY : IC2901 - IC2906)

• PLASMA DISPLAY PANEL IC

● **PIN LAYOUT (Top View)**



● **BLOCK DIAGRAM**



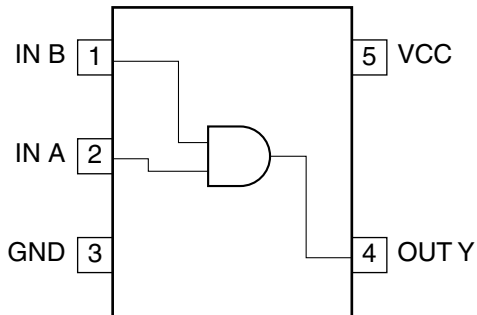
A ● PIN FUNNCTION

No.	Pin Name	I/O	Pin Function
1 - 30	OUT3 - OUT32	O	High-voltage push-pull output
31	N.C.	–	Not used
32 - 33	VDDH	–	Power for High-voltage circuit
34	N.C.	–	Not used
35 - 37	GND1	–	GND
38	N.C.	–	Not used
39	GND2	–	GND
40 - 41	GND1	–	GND
42	N.C.	–	Not used
43 - 44	VDDH	–	Power for High-voltage circuit
45	N.C.	–	Not used
46 - 77	OUT33 - OUT64	O	High-voltage push-pull output
78	N.C.	–	Not used
79 - 80	VDDH	–	Power for High-voltage circuit
81	N.C.	–	Not used
82 - 83	GND1	–	GND
84	DIR	I	Setting the shift direction of shift-register L : reverse side shift (SO→SI), H : forward side shift (SI→SO)
85	SO	I/O	Serial data In/Out
86	CLK	I	Serial clock Input Down-side edge trigger
87	LAT	I	LAT data Input L : The data of shiftregister is transferred to ouput latch. H : The ouput data of latch is holded.
88	VDD	–	Power for Logic circuit
89	OC1	I	Output control Output is controlled by truth table right side.
90	OC2	I	
91	SI	I/O	Serial data In/Out
92	CLR	I	All output reset CLR terminal : L → normal operation, CLR terminal : H→ All output "H"
93 - 94	GND1	–	GND
95	N.C.	–	Not used
96 - 97	VDDH	–	Power for High-voltage circuit
98	N.C.	–	Not used
99 - 100	OUT1 - OUT2	O	High-voltage push-pull output

■ TC7SH08FUS1 (50 SCAN B ASSY : IC2907)

- 2-input AND Gate

● Block Diagram



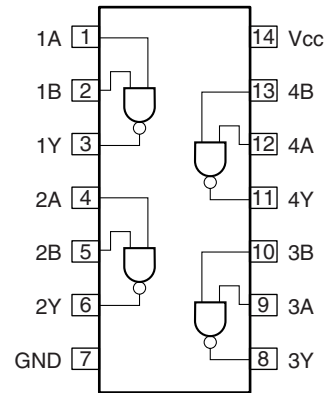
● Truth Table

A	B	Y
L	L	L
L	H	L
H	L	L
H	H	H

■ TC74VHC00FTS1 (50 X MAIN DRIVE ASSY : IC1002)

- Quad 2-input AND Gate

● Block Diagram



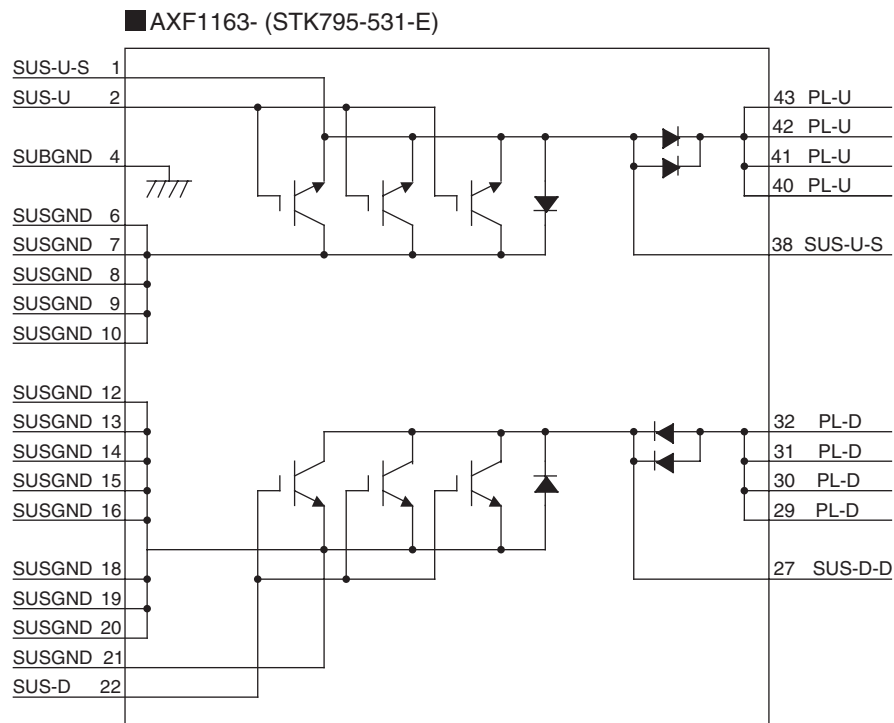
● Truth Table

A	B	Y
L	L	H
L	H	H
H	L	H
H	H	L

■ AXF1163 (50 X MAIN DRIVE ASSY : IC1104) (50 Y MAIN DRIVE ASSY : IC2107)

- DK Module

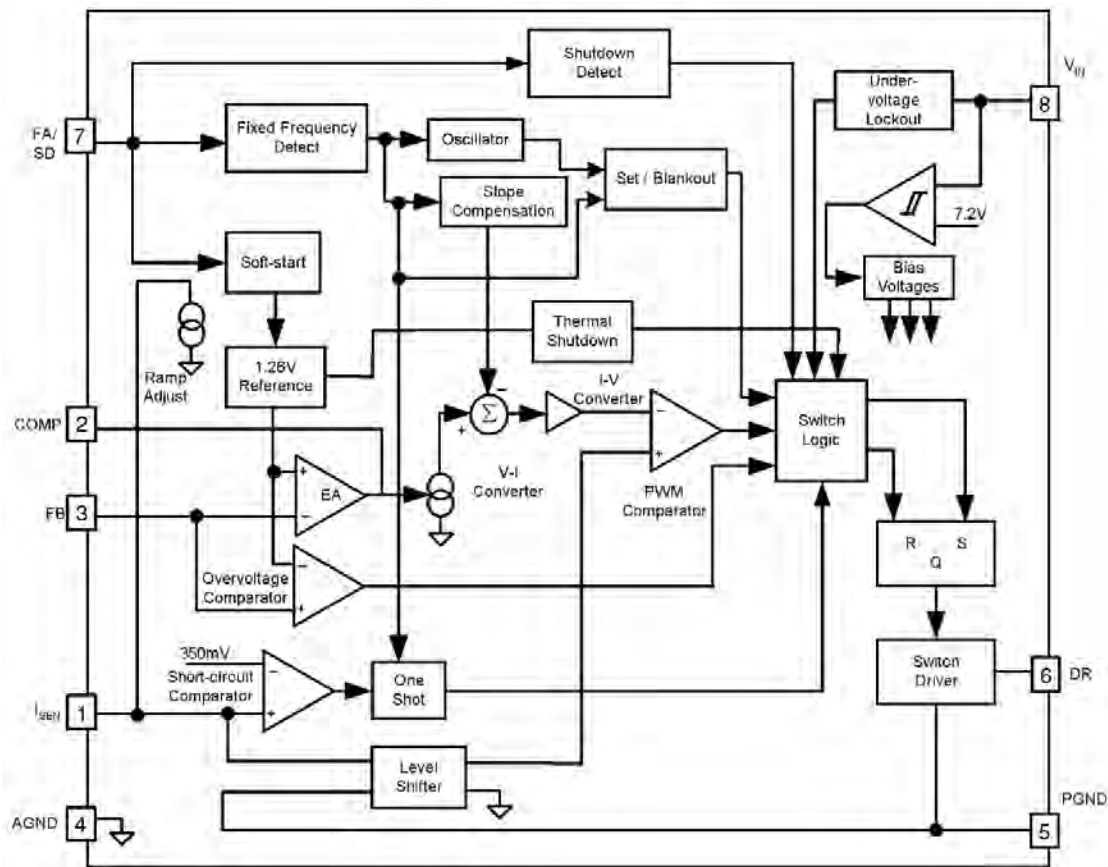
● Block Diagram



■ LM3478MMX (LVDS ASSY : IC301)

- Switching Regulator

● Block Diagram



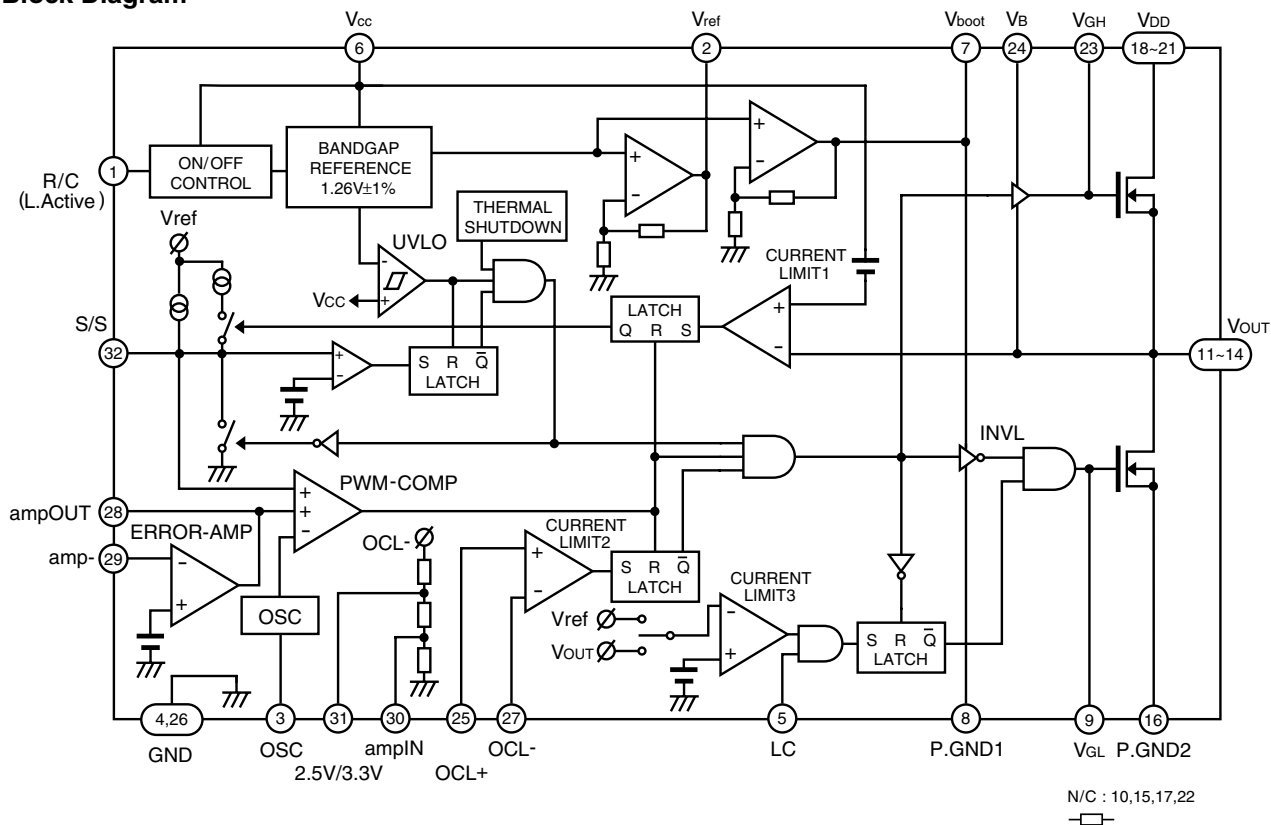
● Pin Function

No.	Pin Name	Pin Function
1	ISEN	Current sense input pin. Voltage generated across an external sense resistor is fed into this pin.
2	COMP	Compensation pin. A resistor, capacitor combination connected to this pin provides compensation for the control loop.
3	FB	Feedback pin. The output voltage should be adjusted using a resistor divider to provide 1.26V at this pin.
4	AGND	Analog ground pin.
5	PGND	Power ground pin.
6	DR	Drive pin of the IC. The gate of the external MOSFET should be connected to this pin.
7	FA/SD	Frequency adjust and Shutdown pin. A resistor connected to this pin sets the oscillator frequency. A high level on this pin for $\geq 30\mu s$ will turn the device off. The device will then draw less than $10\mu A$ from the supply.
8	VIN	Power Supply Input pin.

■ MD3222N (LVDS ASSY : IC305)

• DC-DC Converter

● Block Diagram



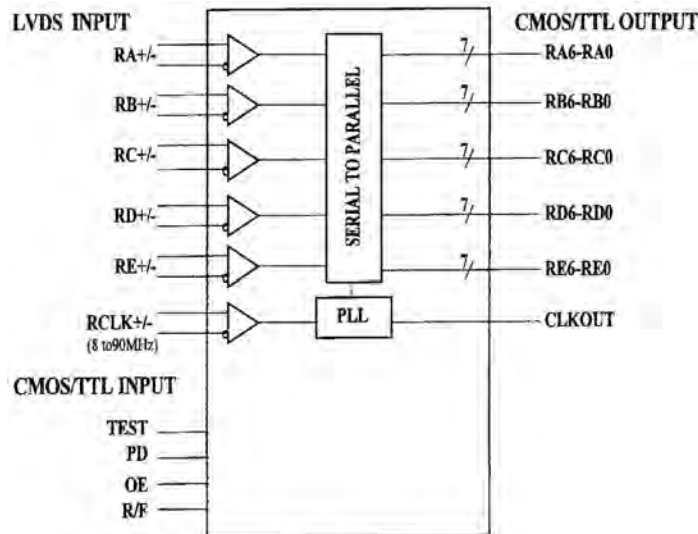
● Pin Function

No.	Pin Name	Pin Function
1	R / C	Remote ON / OFF control
2	Vref	Internal reference voltage output
3	OSC	Oscillation frequency select
4,26	GND	Control circuit GND
5	LC	Cut - off detect select
6	Vcc	Control circuit power supply
7	Vboot	Low side MOSFET drive circuit power supply
8	P.GND1	Low side MOSFET drive circuit GND
9	VGL	Low side MOSFET gate.Please do not connect the pin anywhere.
11-14	Vout	Output
16	P.GND2	Low side MOSFET sources
18-21	VDD	High side MOSFET power supply
23	VGH	High side MOSFET gate.Please do not connect the pin anywhere.
24	VB	High side MOSFET drive circuit power supply
25	OCL+	Over - current +ve detect at external resistance detection
27	OCL-	Over - current - ve detect at external resistance detection
28	ampOUT	Internal error amplifier output
29	smp-	Internal error amplifier inverted input
30	ampIN	Internal voltage detect resistor output
31	2.5V/3.3V	2.5V / 3.3V output select
32	S / S	Soft start condenser connection
10,15,17,22	N / C	Non - connection (not connected internally)

■ THC63LVD104AF-K (IC101 : LVDS ASSY)

• LVDS Receiver

● Block Diagram



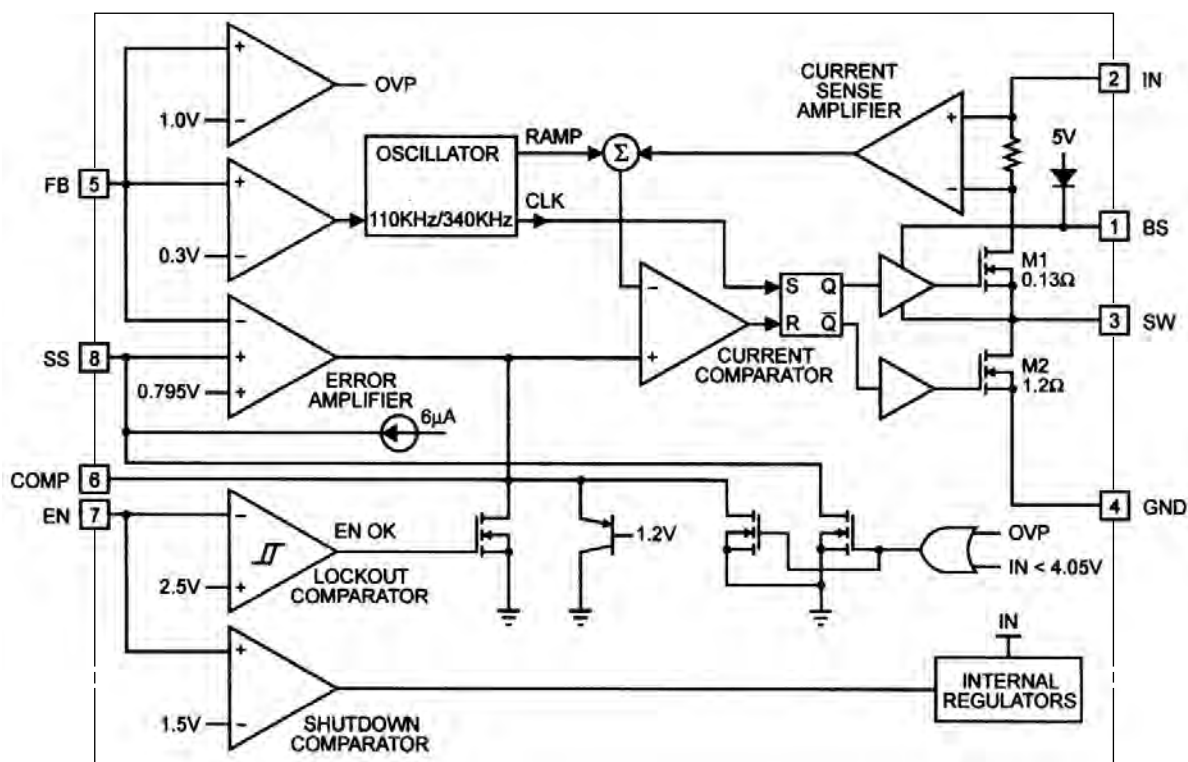
● Pin Function

Pin Name	Pin #	Type	Description
RA+, RA-	50, 49	LVDS IN	LVDS Data In.
RB+, RB-	52, 51	LVDS IN	
RC+, RC-	55, 54	LVDS IN	
RD+, RD-	60, 59	LVDS IN	
RE+, RE-	62, 61	LVDS IN	
RCLK+, RCLK-	57, 56	LVDS IN	LVDS Clock In.
RA6 ~ RA0	40,41,42,43,45,46,47	OUT	CMOS/TTL Data Outputs.
RB6 ~ RB0	32,33,34,35,36,38,39	OUT	
RC6 ~ RC0	22,24,25,26,27,28,29	OUT	
RD6 ~ RD0	14,15,17,18,19,20,21	OUT	
RE6 ~ RE0	6,7,8,10,11,12,13	OUT	
TEST	2	IN	Test pin, must be "L" for normal operation.
PD	3	IN	H: Normal operation, L: Power down (all outputs are "L")
OE	4	IN	H: Output enable (Normal operation). L: Output disable (all outputs are Hi-Z)
R/F	5	IN	Output Clock Triggering Edge Select. H: Rising edge, L: Falling edge
VCC	9,23,37,48	Power	Power Supply Pins for TTL outputs and digital circuitry.
CLKOUT	31	OUT	Clock out.
GND	1,16,30,44	Ground	Ground Pins for TTL outputs and digital circuitry.
LVCC	53	Power	Power Supply Pin for LVDS inputs.
LGND	58	Ground	Ground Pin for LVDS inputs.
PVCC	64	Power	Power Supply Pin for PLL circuitry.
PGND	63	Ground	Ground Pin for PLL circuitry.

■ MP2367DN-LF (IC302 : DD ASSY)

• Converter IC

● Block Diagram



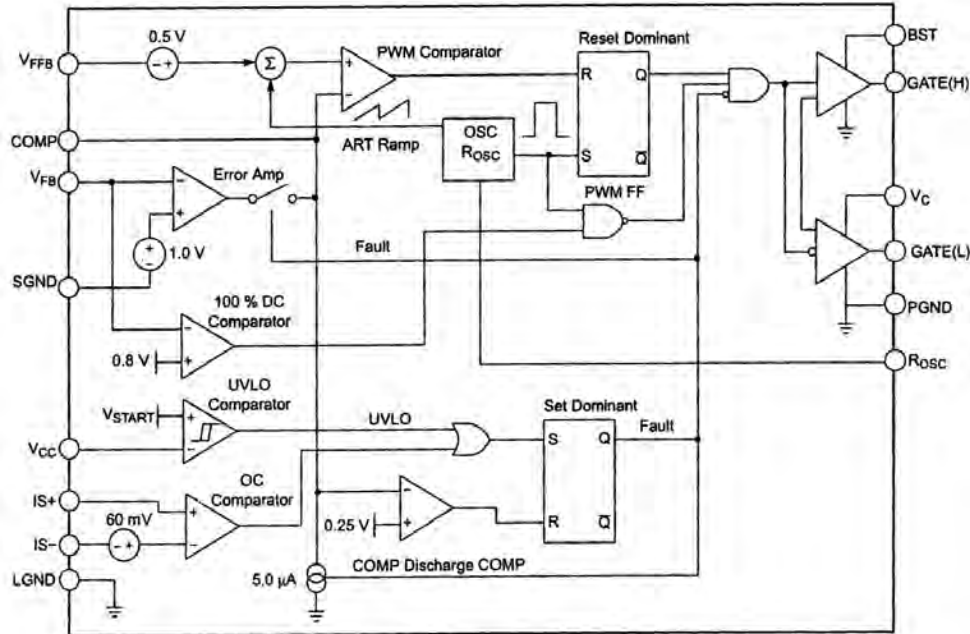
● Pin Function

Pin #	Name	Description
1	BS	High-Side Gate Drive Boost Input. BS supplies the drive for the high-side N-Channel MOSFET switch. Connect a 0.01μF or greater capacitor from SW to BS to power the high-side switch.
2	IN	Power Input. IN supplies the power to the IC, as well as the step-down converter switches. Drive IN with a 4.75V to 28V power source. Bypass IN to GND with a suitably large capacitor to eliminate noise on the input to the IC. See <i>Input Capacitor</i> .
3	SW	Power Switching Output. SW is the switching node that supplies power to the output. Connect the output LC filter from SW to the output load. Note that a capacitor is required from SW to BS to power the high-side switch.
4	GND	Ground (Connect Exposed Pad to Pin 4)
5	FB	Feedback Input. FB senses the output voltage to regulate that voltage. Drive FB with a resistive voltage divider from the output voltage. The feedback reference voltage is 0.795V. See <i>Setting the Output Voltage</i> .
6	COMP	Compensation Node. COMP is used to compensate the regulation control loop. Connect a series RC network from COMP to GND to compensate the regulation control loop. In some cases, an additional capacitor from COMP to GND is required. See <i>Compensation Components</i> .
7	EN	Enable Input. EN is a digital input that turns the regulator on or off. Drive EN high to turn on the regulator, drive it low to turn it off. Pull up with 100kΩ resistor for automatic startup.
8	SS	Soft-Start Control Input. SS controls the soft-start period. Connect a capacitor from SS to GND to set the soft-start period. A 0.1μF capacitor sets the soft-start period to 15ms. To disable the soft-start feature, leave SS unconnected.

■ NCP5211BDG (IC303 : DD ASSY)

• Regulator IC

● Block Diagram



● Pin Function

PIN NO.	PIN SYMBOL	FUNCTION
1	GATE(H)	High Side Switch FET driver pin. Capable of delivering peak currents of 1.0 A.
2	BST	Power supply input for the high side driver.
3	LGND	Reference ground. All control circuits are referenced to this pin. IC substrate connection.
4	VFFB	Input for the PWM comparator.
5	VFB	Error amplifier input.
6	COMP	Error Amp output. PWM Comparator reference input. A capacitor to LGND provides error amp compensation.
7	SGND	Internal reference is connected to this ground. Connect directly at the load for ground remote sensing.
8	Rosc	A resistor from this pin to SGND sets switching frequency.
9	VCC	Input Power Supply Pin. It supplies power to control circuitry. A 0.1 µF Decoupling cap is recommended.
10	IS-	Negative input for overcurrent comparator.
11	IS+	Positive input for overcurrent comparator.
12	Vc	Power supply input for the low side driver.
13	GATE(L)	Low Side Synchronous FET driver pin. Capable of delivering peak currents of 1.0 A.
14	PGND	High Current ground for the GATE(H) and GATE(L) pins.